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TRANSCRIPT OF PROCEEDINGS: PROGRESS EVALUATION MEETING IN THE MATTER OF POLLUTION OF THE INTERSTATE WATERS OF THE RED RIVER OF THE NORTH AND ITS TRIBUTARIES NORTH DAKOTA-MINNESOTA. HELD AT FARGO, NORTH DAKOTA ON 6 DECEMBER 1967

Federal Water Pollution Control Administration
Washington, D. C.

1968

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TRANSCRIPT OF PROCEEDINGS

NORTH DAKOTA
MINNESOTA

PROGRESS EVALUATION MEETING

In the matter of pollution of the Interstate Waters of the Red River of the North and its Tributaries North Dakota-Minnesota

DECEMBER 6, 1967

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PROGRESS EVALUATION MEETING
IN THE
MATTER OF POLLUTION OF THE
INTERSTATE WATERS OF THE
RED RIVER OF THE NORTH AND
ITS TRIBUTARIES

held in

Fargo, North Dakota

December 6, 1967

TRANSCRIPT OF PROCEEDINGS

Federal Water Pollution Control Administration
U. S. Department of the Interior
Washington, D. C.

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PROGRESS EVALUATION MEETING

A Progress Evaluation Meeting in the Matter of Pollution of the Interstate Waters of the Red River of the North and its Tributaries convened at 10 a.m., Wednesday, December 6, 1967, at the Oak Manor Motel, Fargo, North Dakota.

CONFEREES:

Presiding:

Murray Stein
Assistant Commissioner for Enforcement
Federal Water Pollution Control Administration
Department of the Interior
Washington, D. C.

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Grand Forks, North Dakota

- - -

PROCEEDINGS

OPENING STATEMENT

BY

MR. MURRAY STEIN

CHAIRMAN STEIN: This meeting is in order.

This is a meeting of the Conferees representing the States of Minnesota and North Dakota and the United States Department of the Interior. Its purpose is to evaluate progress toward pollution control in the waters covered by the Conference in the matter of pollution of the interstate waters of the Red River of the North and its tributaries.

The first session of the Conference held under the Federal law was held on September 14, 1965, at Fargo. The Conferees, their staffs and other interested parties also met in Minneapolis, Minnesota, on January 18, 1966, and on March 4, 1966. As a result of discussions at these three meetings, the Conferees adopted conclusions and recommendations for remedial action. The Conferees recommended that this remedial program be accomplished in accordance with the following schedule:

All municipalities in the Conference

area are to have adequate treatment facilities completed and in operation by April 1, 1968.

Necessary industrial waste reduction is to be accomplished by April 1, 1968. The North Dakota State Department of Health or the Minnesota Water Pollution Control Commission may grant to specific industries an extension of the deadline for one year, until April 1, 1969, where extensive construction is necessary.

In addition, it was recommended that the North Dakota State Department of Health or the Minnesota Water Pollution Control Commission may allow five years, until April 1, 1971, to accomplish removal of nutrients, including phosphorus, from waste discharges where delays in development of effective removal processes indicate that the time is needed.

This meeting is being held for the purpose of determining the progress being made toward compliance with the Conference recommendations.

The parties to this meeting are the Conferees representing the official water pollution control agencies of Minnesota, North Dakota and the United States Department of Interior. The Minnesota

Water Pollution Control Commission will be represented by several Conferees. Mr. John Badalich, who is the Chief of the Professional Staff from Minnesota, is here.

Would you introduce your Conferees, Mr. Badalich, please?

MR. BADALICH: I will do that now, Mr. Stein.

The official name of our agency is the Minnesota Pollution Control Agency, and I am the Director. My name is John Badalich.

We have two Conferees here from the Minnesota agency and they are Mr. Steve Gadler, Agency Member, and Mr. Mace Harris, another Member.

CHAIRMAN STEIN: Thank you.

The North Dakota State Department of Health will be represented by several Conferees. Mr. Willis Van Heuvelen, would you introduce your group, please?

MR. VAN HEUVELEN: Yes. We are represented by Mr. Norm Peterson, the Director of our water pollution control program and State Department of Health, and Mr. Roger Schmid, representing the State Water Commission.

CHAIRMAN STEIN: The Federal Conferee is Mr. Garry Fisk, and Mr. Fisk is the Regional **Director based** in Kansas City and in charge of this region.

My name is Murray Stein. I am from headquarters of the Department of the Interior and the representative of Secretary Udall.

Now a word about the procedures governing the meeting.

The Conferees will be called upon to make statements and in addition may call upon participants whom they have invited to the meeting to make statements. In addition, we will call on other interested individuals who wish to make statements.

I would suggest that anyone wishing to make a statement get in touch with the representatives of their respective States or Mr. Fisk with the Federal agency. We are going to follow the usual procedure and allow the Federal government and each of the States to manage its own time in the presentation and they should be calling on the other participants.

At the conclusion of the statements,

we will give the Conferees an opportunity to ask a question or make comments. The procedure we followed in the past, and I think which would be effective here, is not to permit questioning or comments after each one from the floor. However, you will be given a full opportunity to get your views stated. If you wait your turn, you can make your full statement and we are here to listen to everything that has to be said. If we followed another procedure, we might be up in this beautiful country for weeks, and I think this method has proved effective in moving this along.

At the end of all the statements, if it is appropriate, we may have a discussion among the Conferees and try to arrive at a basis of agreement on the facts of the situation. And again if it is appropriate we will attempt to summarize the meeting orally, giving the Conferees, of course, the right to amend or modify the summary.

A record and verbatim transcript of the meeting is being made by Mrs. Virginia Rankin, and this is made for the purpose of providing a complete record of what is being said here. We will make this transcript available to the State agencies for distribution. Past experience has shown that it takes about four months for us to go through the processes and get the transcript distributed.

One more point, I think. If anyone is going to put any material in the record, the record will be printed in black and white, no color, and if there are any references to color or anything like that, remember your are speaking for the record. If you mention something in the chart and say,"The red patch over there," when someone reads the record they won't understand what you are saying. Or don't wave at an exhibit or a chart in the same vague manner, because again no one will know what you are talking about when they read the record.

I would suggest that all speakers and participants other than the Conferees making statements come up to that end of the table so you can face Mrs. Rankin and identify themselves for the purposes of the record.

We will call on Mr. Fisk for a Federal statement or participation from the representatives of Federal agencies.

Mr. Fisk.

FEDERAL PRESENTATION

GARRY L. FISK
Acting Regional Director
FWPCA, Missouri Basin Region

MR. FISK: We haven't any prepared statement to make at this time. I would like to first introduce a couple of members of our staff from Kansas City.

Mr. Carl Blomgren, who is Chief of our enforcement program, and Mr. Evan Dildine, Chief of our construction grants program.

We have been in contact with the various Federal agencies and asked them whether they want to make statements or not. I don't know whether we got replies back from everybody. We did have indications from three people who would like to make a statement. I would like to call on those people first, and then call on others present that may wish to make a statement at this time.

Mr. Willard Spaulding with the Division of Fishery Services, Bureau of Sport Fisheries and Wildlife, at Minneapolis.

CHAIRMAN STEIN: May I also suggest, if you have an extra copy of your statement, you give the copy to the reporter.

WILLARD M. SPAULDING, JR.

STATEMENT BY WILLARD M. SPAULDING, JR.
ASSISTANT REGIONAL SUPERVISOR,
DIVISION OF FISHERY SERVICES
U. S. BUREAU OF SPORT FISHERIES AND WILDLIFE, REGION 3

MR. SPAULDING: I am Willard Spaulding, Assistant Regional Supervisor, Division of Fishery Services, U. S. Bureau of Sport Fisheries and Wildlife, Minneapolis, Minnesota.

The Bureau of Sport Fisheries and Wildlife is interested in assuring that the Red River of the North and its tributaries provide the maximum allowable fishing and hunting and recreational opportunities today and in the future. We are vitally interested in protecting and enhancing the quality of the water in this drainage. The Bureau presented a statement of interest in the matter of pollution of interstate waters of the Red River of the North and its tributaries here in Fargo, North Dakota, September 14, 1965.

Our position has not changed. It is the position of this Bureau that the ultimate goal of the clean waters program of the Nation should maintain or achieve such quality in every stream, lake, estuary, bay, or other water as will support the full potential of the water for production and human use of aquatic life and water-dependent wildlife resources. In the establishment of designated uses or classifications of water by the States, every effort should be made to encourage the improvement of quality. In fact, classifications should set targets for improved quality.

Criteria contained in the various standards, in general, represent the extreme of such quality parameter below or above which we cannot normally expect long-term survival of aquatic resources. Unfortunately, the criteria tend to lie closer to minimal rather than optimal values for aquatic life. Since many streams now have water qualities higher than those set by the States or recommended by the National Technical Advisory Committees, every effort should be made to set criteria more stringent than that recommended, and protect these high quality waters where they exist.

Water pollution is the specific impairment of water quality by agricultural, domestic, or industrial wastes (including thermal and atomic wastes) to a degree which has an adverse effect upon any beneficial use of water, yet which does not necessarily create an actual hazard to the public health. Our concern is rightly centered on water quality for maintenance of vigorous populations of aquatic life, especially sport fishes.

As recently stated by Mr. John S. Gottschalk, Director, Bureau of Sport Fisheries and Wildlife, pollution in the Red River of the North severely limits development and maintenance of a river fishery.

Needs for additional fishing opportunity could be largely met by restoring water quality in the Red River. This could generate thousands of fisherman days of new opportunity in or adjacent to the Fargo-Moorhead and Grand Forks use areas. Needs for fish and wildlife will increase. This makes it imperative that water quality standards be adopted and put into effect in any polluted waterway in the area. Such a program, when effected, will restore valuable fish and wildlife habitat and contribute significantly to the economy of the area.

It should be the primary purpose of individuals, communities, and State and Federal agencies having an interest in the Red River of the North and its tributaries to continue to develop a mutual comprehensive program for reducing the pollution of this interstate stream. To this end, the Bureau of Sport Fisheries and Wildlife will work closely with any group or agency having an interest in the improvement and maintenance of the water quality of the River.

Thank you.

CHAIRMAN STEIN: Thank you, Mr. Spaulding.

Are there any comments or questions?

I would like to call the attention of the Conferees and others here to the point of view made by Mr. Spaulding. We, as you know, are sister agencies within the Department of the Interior, and through the years we have worked very closely with the Fish and Wildlife people, even when we were in the Public Health Service and HEW. I think their point of view is very well taken. Assistant Secretary Stanley Cain has made that same point, Mr. Spaulding, that you have, very forcefully, and this may be a key to the development of standards and water quality control in the country.

Let me just read this portion of the Act:

> "Standards of quality established pursuant to this subsection shall be such as to protect the public health or welfare, enhance the quality of water and serve the purpose of this Act."

I think the key operating phrase that I would like to call to your attention is "enhance the quality of the water."

Let me give you perhaps a rather poor example. If you have 8 or 9 parts per million of dissolved oxygen and, say, coliform counts at the water intake of 240, the notion of providing minimal standards such as 5 parts per million of DO (less than the 8 or 9 there now) or say 5,000 coliforms, which is considered acceptable for a water supply, this would be questioned by many Fish and Wildlife people as not enhancing water quality but actually degrading it.

WILLARD M. SPAULDING, JR.

This is a very legitimate point of view and the point of view, I think, that all of us in the administration of water pollution control, whether it is State or Federal, will have to keep in mind. I think this is one of the key issues that we are facing both in the States and nationally in the program now, and I am very happy that this came up in the first statement.

Thank you, Mr. Spaulding.

Mr. Fisk.

MR. FISK: Mr. Aleck Alexander, Regional Program Director of Water Supply Program, U. S. Public Health Service, Kansas City.

Aleck.

STATEMENT BY ALECK ALEXANDER
REGIONAL PROGRAM DIRECTOR, WATER SUPPLY PROGRAM
U.S. PUBLIC HEALTH SERVICE, DHEW, REGION VI

MR. ALEXANDER: Thank you, Garry.

The Department of Health, Education and Welfare's Region VI serves seven States, including Minnesota and North Dakota. As Regional Program Director of the Water Supply Program of the Public Health Service, I represent DHEW and its responsibilities and interests in domestic water supplies and the public health aspects of water pollution control and water resources development. These responsibilities are further served in my capacity as Commissioner representing DHEW on the recently created Souris-Red-Rainy River Basins Commission, which Mr. Gray will tell you more about later.

This statement deals with the health aspects of water pollution control on the Red River of the North. It is made under the provisions of the Federal Water Pollution Control Act's 1965 Amendments and the operational and procedural Agreement between the Department of Health, Education and Welfare and the Department of the Interior of September 3, 1965.

As you recall, the Conference was initially called by the Secretary of the Department of Health, Education and Welfare in 1965 because untreated or inadequately treated wastes from one State were believed to endanger the health and welfare of persons in another State.

The Public Health Service is the principal Federal agency concerned with public health. Pollution control improvements to a stream such as the Red River and its watershed inevitably affect the health of people living in the watershed and utilizing the water for domestic supply or recreation. Subjects of vital public health concern regarding which FWPCA must consult the Public Health Service are drinking water supply, contact with water in recreation and work, contamination of food sources, and the breeding of insect vectors. The health threat associated with water is of three types, chemical, biological, and radiological.

For many years, the Public Health Service has promulgated drinking water standards for water supplies used on interstate carriers and has been responsible for the certification of such water supplies. These standards have been adopted or are used as the guidelines for drinking water quality in all 50 States. The Public Health Service also has served as consultant and technical assistant to State and local health departments in their programs of safeguarding the quality of municipal-domestic water supplies. The Red River and its tributaries are utilized as a raw water source for domestic water supplies serving over 160,000 persons, about one-third of the Basin's population. Protection of water quality for this use is a very important aspect of this Conference. We are vitally interested in this feature of the Conference and the progress of effective remedial programs.

In fulfilling our responsibilities regarding the health aspects of water pollution control, the Public Health Service has developed health guidelines for water resources development including water quality for domestic and food processing use, recreational development, and vector control. The bacterial criteria for surface waters and waste effluents which were established by the Conferees are satisfactory for protection of these raw water sources and compare favorably to the Public Health Service guildelines. The chemical and radiological quality of the subject waters must also be considered for the protection of the drinking water users. Both Minnesota and North Dakota have recently adopted Water Quality Standards for Interstate Streams, including the Red River. The water quality criteria in the Standards of both States includes chemical and radiological limits similar to those in the Public Health Service Drinking Water Standards.

I am pleased to represent the Department of Health, Education and Welfare at this meeting. We in the Public Health Service are ready to do whatever we can to cooperate and assist in the job of safeguarding and improving the quality of Red River water which is an important raw water source for a large percentage of the persons in the Red River Basin. The work and accomplishments of the Conferees is commendable and we are pleased to join you in this undertaking.

CHAIRMAN STEIN: Thank you, Mr. Alexander.

Are there any comments or questions?

I have worked with Mr. Alexander through the years, I hate to say how many. His Department is the one we generally get the standards from on protection of health, particularly on the chemical and radiological and, of course, the pathogenic count or coliforms.

As I take it, the program that we have here and the States and the Department of Interior meet all the requirements that you recommend, is that correct, in these areas?

MR. ALEXANDER: Yes. As I indicated,

Murray, we have established quality guidelines for this purpose, for drinking water supplies, raw water supplies, and the standards or the criteria which the Conferees agreed upon, I think, were confined mostly to bacterial and dissolved oxygen, turbidity and color.

CHAIRMAN STEIN: Right.

MR. ALEXANDER: Since that time both States have adopted water quality standards which add to these criteria the chemical and radiological by direct reference to the Public Health Service standards.

CHAIRMAN STEIN: In other words, they are identical.

MR. ALEXANDER: And this is satisfactory. Right. This is in concurrence with our--

CHAIRMAN STEIN: I think to clear that up, generally speaking in these Conferences what we deal with is a problem area. Now, I think the standard scope may be a little broader. In other words, there was really not an identifiable problem when we were out here last time about any defect in the chemical or radiological quality of the water for drinking purposes. That is why it wasn't covered.

But since the standard operation covers all aspects, these were covered in the standards.

And this might be a point that should be made clear. The pollution problem that we found in the Red River of the North was not related to chemical quality or radiological quality. In other words, the waters were not deficient in that respect and they were not considered.

Yes.

MR. GADLER: Mr. Spaulding, both the last two speakers mentioned radiological. Can you elucidate on that a little?

CHAIRMAN STEIN: Well, I think they are trying to cover all aspects of the purity of the water. The difficulty with the term "radiological" is that it is kind of an emotional word in our times and a color word. There has been no evidence up here that the surface waters we are concerned with have ever had a radiological content which would be of any concern to a pollution control agency. They were well within normal limits.

And the trouble is, you know, you are speaking for a record. I don't want to say that we weren't concerned at one time. You will recall that when we used to have that atmospheric bomb testing, we were a little disturbed about the fallout and radioactivity in many parts of the country. But fortunately, that is over now and hopefully it will never be resumed.

So given at least this decade of work, I don't think there is a radiological problem here, actual or potential, and I think the references made were just made by these people so they covered all aspects of the problem.

Mr. Fisk.

MR. FISK: Gordon Gray, the Director of the Souris-Red-Rainy River Basins Commission, would like to make a statement.

STATEMENT BY

GORDON K. GRAY, CHAIRMAN

SOURIS-RED-RAINY RIVER BASINS COMMISSION

MR. GRAY: Mr. Stein, Mr. Fisk, public health officials from the States of Minnesota and North Dakota, ladies and gentlemen.

My name is Gordon K. Gray. I am Chairman of the Souris-Red-Rainy River Basins Commission.

This Commission was established by President Lyndon B. Johnson pursuant to Executive

Order No. 11359, issued June 20, 1967. Its jurisdiction extends to those portions of the States of Minnesota, North Dakota and South Dakota that are drained by the three-river system. In addition there are about 30 square miles in the Souris River headwaters area in northeastern Montana.

The principal responsibilities of a river basin commission are to:

(a) "serve as the principal agency for the coordination of Federal, State, interstate, local and nongovernmental plans for the development of water and related land resources" within its area of jurisdiction;

(b) "prepare and keep up to date, to the extent practicable, a comprehensive, coordinated, joint plan for Federal, State, interstate, local and nongovernmental development of water and related land resources";

(c) "recommend long-range schedules of priorities for the collection and analysis of basic data and for investigation, planning, and construction of projects";

(d "foster and undertake such studies of water and related land resources problems...as are necessary" for comprehensive river basin planning.

There is to be partnership in the comprehensive planning which shall include Federal, State, local government and private measures for the use, development and conservation of water and related land resources.

My interpretation of the phrase "development of water" includes, among other activities:

1. Storage for beneficial purposes.

2. Retardation of flow to increase benefits and to minimize flooding and damage to property.

3. Augmentation of low flow to maintain water supply.

4. Any treatment that improves water quality for particular uses.

5. Any activity that prevents or reduces pollution and increases water safety and usability.

Within the purview of statutory enactments and accepted principles and standards, the basic objective of a river basin commission in the formulation of its plans shall be to provide for the best use, or combination of uses, of water and related land resources to meet all foreseeable short- and long-term needs. The well-being of all the people shall be the overriding determinant in the planning of such projects.

Our Commission is concerned with all phases of water and related land resource development and we are interested in your meeting today.

I appeared before the International Joint Commission at a hearing in Grand Forks last Monday on the pollution of the boundary waters of the Red River. It was reported that the extent of the pollution at the boundary was not critical at this time. I concur in the recommendation that a program of continuing surveillance be initiated at the International Boundary at the earliest possible date.

Thank you.

CHAIRMAN STEIN: Thank you, Mr. Gray.

Again this is a reflection of a growing development and concern by the Conferees in establishing these river basin agencies, and the thought was that we can have a very useful ally in these groups by determining what is going to happen on a river basin basis and get some planning and program working on the river basin basis. This is the one way we will be able to meet many of our problems, and I know we in the Department of the Interior look forward to working very closely with these river basin agencies.

Thank you very much.

Mr. Fisk.

MR. FISK: That is the last of the statements that we know that are to be presented. However, I would like to go through the audience if I can and call on some of the other people I know are to be here or at least indicated they would be here and see if they have a statement to make.

Mr. Charles E. Vance, State Conservation, North Dakota. Do you care to make a statement? He is representing the Soil Conservation Service, Missouri Basin Agriculture Field Committee, Department of Agriculture.

STATEMENT BY O. K. BERG
AREA CONSERVATIONIST
SOIL CONSERVATION SERVICE

MR. BERG: I am O. K. Berg, Area Conservationist from Fargo. I am representing Charlie E. Vance. He called me up last night and said he couldn't make it.

The Soil Conservation Service's basic responsibility is the planning and the establishment of soil and water conservation programs. Good soil and water conservation programs will give us a certain degree of assurance of maintaining clean channels, providing clean water, along with conserving our natural resources of soil. Sediment pollution and erosion debris are the two major problems to maintaining clean water in all our streams and channels in this area. By good soil and water conservation programs, these two problems will be greatly reduced.

Thank you.

CHAIRMAN STEIN: Thank you, Mr. Berg.

Any comments or questions?

If not, Mr. Fisk.

MR. FISK: Mr. Harlan Erskine, representing the Rocky Mountain Division, Geological Survey. Do you have a statement?

STATEMENT BY HARLAN M. ERSKINE

DISTRICT CHIEF

U.S. GEOLOGICAL SURVEY

MR. ERSKINE: Mr. Chairman, ladies

and gentlemen.

The Geological Survey's function is primarily one of collecting basic data regarding water in this case, and our interest in the program that we are discussing here today is primarily in that area.

You might be interested to know a little bit about the work we are doing, which may be of interest to this Commission, this Board. We maintain records of flow of the Red River itself at six points along the boundary, ranging from Wahpeton to Emerson, and there are some forty or fifty points in each Minnesota and North Dakota on tributaries where flow information is being obtained.

With regard to the quality of the water, we are obtaining daily information on the chemical quality of the Red River at two points, at Fargo and at Grand Forks, and at about six or seven points on tributaries in each of the States records of chemical quality are obtained either daily or two or three times a year on some of these smaller streams.

While these data are being collected primarily for this project, they are supported by various agencies with various interests, and I am sure that this information is quite important and useful in these studies.

Thank you.

CHAIRMAN STEIN: Thank you very much, Mr. Erskine.

Any comments or questions?

If not, Mr. Fisk.

MR. BADALICH: Mr. Stein, I have one question of Mr. Erskine. Is it possible this data will be available to our agency? We also have surveillance points, and I am sure this information would tie in very greatly with our program.

MR. ERSKINE: Yes, that is true. In fact, I have had some conversation with Mr. Peterson very recently about trying to expedite the information. It is all published in an annual report, but the report is perhaps a year to 15 months in arrears of the completion of the year timewise.

We are attempting to set up some machinery whereby the provisional data can be made somewhat earlier, and I think we are on the right track to accomplish that.

MR. BADALICH: It would be appreciated

if the data could be available almost currently so that we could actually survey the situation as we get our reports, except a year to a year and a half might be quite disastrous sometimes.

MR. ERSKINE: There are some real problems in getting it currently, but we can at least expedite it somewhat.

CHAIRMAN STEIN: You know, I would like to get this plea on the record too. This is a problem, and of course again part of our department. We have the same problem in these reports. But the problem in pollution control is having current data. When you deal with a river, you know, it is almost like visiting the zoo. You go to the zoo one day and you go the next day and it is never the same. Animals are born and they die and you have changes. As population grows, industry comes in or industry closes down and there are many, many shifts.

Now, particularly in the State agencies and with us in dealing with pollution control, when we get down to the hard facts of the case, one of the accusations that is always thrown at us as a defense, but nevertheless one that is very real and has to be met is, "How do you know your data supports current conditions?" I remember a time when we were moving against some severe polluters in what was a boom oil field in Kentucky, of all things, and, as a matter of fact, the brines from the oil fields were going down the Green River and threatening the blind fish in Mammoth Cave. We were afraid we would lose those, and once we lost those we would never replace them. We had to move pretty fast to stop it.

We got into court, and I guess the judge was sympathetic to the local interests. This was on a Friday and the judge asked our investigator, the engineer, when he examined this gas from the well last and he said Wednesday. The judge just rapped his gavel and said, "Case dismissed."

You know, that is an extreme case and you can't do that. We don't face that too often.

I think the point that Mr. Badalich made, and I think that we would have to make, is that this basic data is very fine, but when you really have to use it to get someone to put in treatment facilities and to spend hundreds of thousands or millions of dollars, the data gets stale very, very fast. What we have to strive for is to get this stuff current if we can, and we hope to work with you and the States, because we need it as much as they do.

MR. ERSKINE: We have some real problems in getting water quality information rapidly. Just the very process of going through our laboratories takes months itself, besides the tabulation.

CHAIRMAN STEIN: I recognize that. However, the point is, once this goes through the lab, these tentative results should be available. I am not trying to change your procedure because I know how unsuccessful I have been in trying to change ours.

We have been able to do one thing--make the work sheets available. In other words, wherever the data is available and whatever form it is in, there is no reason why it shouldn't be available to the States or to us at that time so someone can look at those sheets. This does not necessarily require a tremendous change in procedures. It is just a question of attitude and making the information we have fully available to the interested people.

Time after time, we have had the State people come to Cincinnati or one of our laboratories and just look at the work sheets. I think even this kind of cooperation, if we can get this back, would be very helpful to these people.

Thank you.

MR. FISK: I think in this regard, some of this stuff will be speeding up. The G.S. now is getting the stream flow data out almost, well, very shortly after the close of the water year. There has been a recent agreement worked out in Washington, as I understand, between our office and U.S.G.S. in which the data now being collected on water quality is going into STORET. Is this right?

MR. ERSKINE: I think that is right, yes, sir.

MR. FISK: This should make the data much more available, I think, than has been the previous case.

CHAIRMAN STEIN: We have the same operation. I do not wish to be too difficult about this. When we are in water pollution control we have two kinds of data. Some of these, as you know, are organic wastes, and unless you do your testing right away or practically on sight, the character is going to change

For example, if you examine coliforms or any pathogenic organisms or Salmonella, unless you get the operation going right away, your sampling and your analyses will not be valid. So somehow we have devised a method whereby we get these trailer labs or we get this iced and we get people running back and forth in automobiles to the laboratory and processing this very rapidly and we do the job.

However, when dealing with some chemical data, which U.S.G.S. is mostly dealing with, the character does not change significantly with time. These samples are returned to the laboratory where they should be run as soon as possible, but they may sit for months before you get at them.

The point that I would like to make is that if we can get this rapid testing process completed in dealing with an organic or with an organism, I don't know why we can't make at least somewhat the same kind of effort to deal with these inorganics and try to get this to the operating agencies that really need this on a current basis. This is something we really should look into.

Thank you.

MR. FISK: Mr. Sam Taylor, who is representing the Regional Solicitor's Office from the Tulsa Region.

MR. TAYLOR: We have no report.

MR. FISK: We had word from the Corps of Engineers that they would have a representative here, there was no statement to be made, but he would be able to answer questions. Is that representative here?

MR. NORTHRUP: Robert Northrup, Corps of Engineers. We have no statement to make at this time.

MR. FISK: That is all the indications that we have received, but I would like to go through the audience and see if there is someone who has been missed, if they would care to stand and identify themselves at this time and say whether they want to make a statement or not.

I guess there are none. That is it.

CHAIRMAN STEIN: Unless there is objection, I will take the easy way out and do this alphabetically. We will call on Minnesota first. O. K.?

MR. VAN HEUVELEN: No objections.

CHAIRMAN STEIN: Mr. Badalich.

MINNESOTA PRESENTATION

STATEMENT OF

JOHN P. BADALICH, DIRECTOR

MINNESOTA POLLUTION CONTROL AGENCY

MR. BADALICH: Mr. Chairman, before I make our statement for the Minnesota Pollution Control Agency, I would like to introduce members of my staff and also the other member of the agency, Mr. Homer Luick, who is also a member of our agency from Minneapolis.

Then the expert in my department I would like to introduce is Mr. Lyle Smith, the Chief Water Pollution Control Engineer.

Mr. Joe Johannes, Administrative Engineer.

And Mr. Lowell Richie, the Hearings Officer.

I believe that is the extent of our staff.

The Minnesota Pollution Control Agency appreciates the opportunity to participate in this meeting and set forth for the record certain organizational changes at the State level in responsibility for water pollution control in Minnesota, as well as to present a summary of Minnesota's progress in construction of sewage and waste disposal facilities in this area since the first conference in September of 1965.

The Minnesota Legislature in May 1967 created the Minnesota Pollution Control Agency and abolished its predecessor, the Minnesota Water Pollution Control Commission. It gave the Agency all of the powers and duties of the Commission and added responsibilities in regard to air pollution, solid waste disposal and land-use planning as it relates to pollution. In addition, the Agency staff was separated from the Minnesota Department of Health, which was largely divested of pollution control responsibilities, and the Agency was made self-sufficient in funding and operation as compared with the Commission, which had no staff or funds of its own.

JOHN P. BADALICH

The Agency members were appointed by Governor LeVander in July 1967 and began their duties in August. I was appointed as the Director in mid-October, and I assumed my responsibilities and duties on November 1 of this year.

In order to assure Agency representation at this meeting, the original Conferees have been replaced by members of the Agency which now has the responsibility for carrying out the State water pollution control program. The Conferees I introduced before are Mr. Steve Gadler and Mr. Mace Harris, and I represent the Agency as its Director.

Considerable progress has been made toward reducing pollution of these waters since September 1965. The following items reflect progress at the State level toward the fulfillment of the recommendations of the September 1965 Conference.

1. A Report on Classification and Establishment of Standards of Water Quality and Purity for the Red River of the North and Major Tributaries dated March 1966, was prepared for the Water Pollution Control Commission based on the studies of the U. S. Public Health Service in 1964-1965.

2. Proposed standards for the Red

River from Breckenridge to the International Boundary were developed and a public hearing was held in Moorhead on May 4, 1966, by the Commission to hear evidence bearing on the adoption of the standards and the issuance of abatement orders in conformance with Minnesota Law.

3. Standards for the Red River of the North, the Otter Tail River from Fergus Falls to the mouth, and the Red Lake River from Crookston to the mouth, were formally adopted by the Commission on July 28, 1966, and abatement orders were concurrently issued to all significant pollution sources discharging to these waters in Minnesota.

4. The standards (WPC-10) and abatement orders were submitted to the Secretary of the Interior by Governor LeVander as part of Minnesota's Interstate Water Quality Criteria and Implementation Plan in June 1967, as required by the Federal Water Quality Act of 1965.

5. The Implementation Plan includes a water quality monitoring program designed to provide information on how the standards are being met and to identify existing or potential trouble spots. Minnesota has had an active statewide water quality

monitoring program since 1953. This has been modified from time to time to suit our own needs for information, and in 1967 the program was markedly expanded to put considerably more emphasis on the interstate waters. The program now includes 87 surface water quality monitoring stations at which sampling is done at least bi-monthly. Eleven stations are located in the Red River Basin, with four being directly on the Red River. These are located at Moorhead, Perley, Grand Forks and Oslo. The remainder of the eleven are on major tributaries such as the Bois de Sioux, Otter Tail, and Red Lake rivers.

On October 1, 1964, the governments of the United States and Canada requested the International Joint Commission to investigate pollution of the Red River of the North. The IJC established the International Red River Water Pollution Board and the Board has conducted studies both in the United States and Canada on the Red River, has developed objectives of water quality for application at the International Boundary, and has prepared a report on its findings and recommendations. The IJC has accepted the Board's report and conducted public hearings on the matter on Monday and Tuesday of this week in

Grand Forks and Winnipeg, respectively. We were represented at that meeting and heard the evidence and in turn the recommendations were adopted. The Agency has been represented at all of the deliberations of the Board, in the conduct of the studies and preparation of the report, as well as at the hearings.

The following pertinent parts of the conclusions and recommendations are quoted from the Board's report:

"1. During the survey period the waters of the Red River were being polluted by sewage and industrial wastes on both sides of the International Boundary, but not to the extent that, at the Boundary itself, a degree of pollution existed which was causing, or was likely to cause, injury to the health or property of persons in Canada.

"1. (a) Dissolved oxygen levels at the boundary were not found to be critical at any time during this investigation. This was confirmed by the biological survey, when organisms with low tolerance to pollution were found in the zone from the boundary north to Metropolitan Winnipeg.

"1. (b) Bacteriological quality of

the waters at the boundary during the fall and winter periods was slightly below the level of 5,000 most probable number per 100 milliliters suggested in the Board's recommended objectives.

"1. (c) Other parameters measured during the investigation did not show a level of concentration of any particular significance. For example, dissolved solids were low, with concentrations of salts well below the levels generally acceptable for drinking water and irrigation purposes.

"1. (d) The relatively high density of coliform bacteria during certain periods was caused by discharges from both municipal waste stabilization ponds and sugar beet plant storage ponds.

"1. (f) The variation in dates of freeze-up and break-up from south to north in the basin is such that in some years the release of wastes from municipal and industrial waste ponds in the south (in open water conditions) may result in this waste reaching more northerly points under conditions of ice cover.

"2. The waters of the Red River at the International Boundary met the minimum criteria set out in the Board's recommended objectives, which in themselves have been carefully formulated with due regard to the public needs of the people in the basin. The fact that the extent of pollution was not excessive can be ascribed to improvements in municipal and industrial waste treatment, and to the high flows when compared to mean values for the previous ten-year period.

"3. The sources of pollution are related to the siting of concentrated population and the diversified industries peculiar to the Red River Basin. However, the increase in population in the basin, along with the trend to urbanization and industrialization, will contribute to the magnitude of the problem of pollution and the complexity of pollution control.

"4. Adequate programs for water pollution control are now in process for the waters under the terms of the Reference.

"5. An approved set of objectives is needed as part of any program to ensure satisfactory water quality at the boundary.

"6. A continual surveillance program at the boundary is considered necessary to measure compliance with International Joint Commission objectives, and to reflect changing river basin conditions."

This is one of the recommendations adopted by the International Joint Commission, and the Minneapolis Pollution Control Agency will certainly cooperate in this and expand it along with our own surveillance program.

"7. Because of the adequate control programs already underway, the Board sees no justification for recommending further remedial programs and developing cost estimates.

"8. The expected rise of the level of salts in the river water, resulting from irrigation return flows and releases from Devil's Lake associated with the Garrison Diversion Unit, will be of more significance for industrial than for domestic water supplies.

Recommendations of the Board:

1. That the objectives for water quality control of the International Red River at the boundary, included in this report, be adopted officially by all levels of government, which will be forthcoming as soon as the International Joint Commission report is presented to the State governments and also to the

Federal Government of the United States and also the Canadian Provincial Government.

2. That a program of continuing surveillance be initiated at the International Boundary at the earliest possible date.

And with this the International Joint Commission will be setting up a surveillance board on which will be representatives of Minnesota, North Dakota, the Province of Manitoba, and also the U. S. and the Canadian government. We hope to get this program underway very, very shortly. This surveillance station will be located at Emerson on the Canadian side of the boundary.

The Agency is in full agreement with the conclusions and pledges its support for carrying out the recommendations. For all practical purposes, Minnesota has already complied with the recommendations.

Very substantial progress also has been made by some of the pollution sources in Minnesota in conformance with the order of July 28, 1966. It is assumed that those responsible for waste discharges will themselves wish to present their status report in some detail; therefore, only a brief description of each source and a summary of the present status as we know it is presented in this statement.

American Crystal Sugar Company, Crookston Mill:

It is understood that the company is carrying on studies of in-plant waste sources to determine which wastes are of good enough quality to be segregated for direct discharge to the river and thereby reduce the overall process waste volume. The company has reported that the condenser water already has been diverted directly to the river.

A specific proposal for increasing the waste storage capacity has not been received, but the Company has stated that it is considering installation of a closed loop system during the summer of 1968. In a letter dated November 28, 1967, the company indicated it will be able to store all wastes with a BOD in excess of 25 milligrams per liter from December 1, 1967, until the spring flush, and there will be no further discharges in the fall except for condenser water. Apparently the company, in a technical sense, will not be able to meet the recommended date of April 1, 1968, for overall waste reduction sufficient to avoid further fall discharges, but with completion of the closed loop in the summer of 1968 will be in full practical compliance since the campaign does not begin until fall.

The company has diverted its mill sewage into the Crookston system, which could reduce the concentration of coliform bacteria in the mill wastes. The company believes that a closed loop system with lime treatment will effectively reduce the coliform bacteria to the permissible levels for discharge.

If lime treatment is applied, some nutrient reduction may also be achieved. The company was allowed five years, or until April 1, 1971, for nutrient reduction. The Agency has not been informed of any specific proposal on nutrient reduction except for the possibility mentioned above.

American Crystal Sugar Company, East Grand Forks Mill:

No specific proposal for substantial waste volume reduction has been received, although the company has indicated an interest in possible installation of a closed system.

The company is carrying on studies of coliform densities in the mill waste and is experimenting with pH adjustment for control, but apparently has not formed any conclusions on the studies.

The comments made concerning nutrient reduction at the Crookston mill also apply to this mill.

Overall completion of the closing of the mill system is scheduled for September 1, 1968, by the company.

American Crystal Sugar Company, Moorhead Mill:

The company is making studies to determine ways of reducing the volume of process wastes, and it is understood that separation of condenser water is being considered, together with installation of a closed system. Bacteriological studies and experimentation with pH adjustment are also being done.

It is expected that a contract with the City of Moorhead for treatment of the mill sewage will be signed very soon, and plans are being made to award a contract by April 15, 1968, for construction of a sewer extension to connect with the city system. Maybe the people from Moorhead could comment on this later.

The preceding comments on nutrient

reduction also apply to this mill.

Overall completion of the closing of the mill waste system at Moorhead is scheduled for September 1, 1969.

Breckenridge:

A preliminary engineering report on sewage chlorination and storm sewer separation has been submitted to this office and found to be satisfactory. On September 6, 1967, the City submitted a letter with a proposed schedule for completion of the chlorination project by July 1, 1968. There are no combined sewers in the present system.

Climax:

An engineering report and final plans for a stabilization pond were submitted and found to be satisfactory. The plans for the pond system were approved and the project was certified for a Federal grant. This project includes a completely separate sanitary sewer system.

On October 10, 1967, the Agency granted an interim permit to the village with the following conditions:

1. That the village submit within 90 days a full report on financing for the proposed new

treatment works.

2. That a progress report be submitted every month.

3. That the new sewage treatment works be constructed and operational by July 1, 1968.

From information available it appears the village will not meet the recommended completion date of April 1, 1968, for adequate sewage treatment facilities, but we trust they may be able to comply shortly thereafter if their financing problems can be resolved.

Crookston:

The city stated in a letter dated September 12, 1967, that its effluent is already in compliance, and indicated that it is having a comprehensive study made of the sewer system by consulting engineers, with a report to be available soon. It was also indicated that the city has been and will continue to proceed with a sewer separation program.

There is limited information available at this time to make a sound judgment as to the normal effluent quality or the need of the city to chlorinate in order to conform with the conference recommendations. From available data it appears the city may be in substantial compliance but more data is needed.

East Grand Forks:

The city reports that plans and specifications are being prepared for chlorination of its sewage stabilization pond effluent. Approximately seven blocks of storm sewers have been constructed in an area previously served by combined sewers. A preliminary report on separation of the remaining combined sewers was submitted on October 17, 1967. The report appears satisfactory and an application has been made to the U. S. Department of Housing and Urban Development for a construction grant.

It appears from the available information that the city is making reasonable progress toward conformance with the Conference recommendations.

Fergus Falls:

The city has started chlorinating and corrected some problems with combined sewer and raw sewage outlets. It also has indicated its intention to let contracts for correction of similar remaining sewer separation problems next spring. A preliminary report on additions and alterations to the sewage plant was submitted to our Agency on August 2, 1967. The city has several times indicated its intent to conform with the Conference recommendations.

Halstad:

Construction of new sewage treatment facilities with chlorination is underway and estimated to be 60 percent complete. Progress on **sewer** separation is not known, but from available information it appears that the sanitary sewer system is mostly separate, such that almost all of the sewage will be treated in the new plant. It is doubtful that the village will be able to entirely complete the project before April 1, 1968, but the treatment works should be in operation soon thereafter.

Moorhead:

The city has constructed a new sewage treatment plant which is now in operation, and chlorination is being provided. Combined sewers exist only in a small area which is completely encompassed in an urban renewal project, and separation of the sewers will be done concurrently with the other redevelopment work. No information has been supplied by the city regarding sewage nutrient reduction.

It would appear from information available that the city is probably in conformance with the recommendations of the Conference concerning reductions in sewage effluent strength and coliform densities.

Wolverton:

The village is currently constructing sewage treatment facilities, with chlorination, but apparently because of delays on equipment delivery, they will not be completed until next spring. Progress on sewer separation is not known, but available information indicates that the sanitary sewer system is mostly separate and almost all of the sewage will be treated in the new plant. It is doubtful that the village will be able to meet the date for completion of adequate sewage facilities by April 1, 1968, but the plant should be in operation soon thereafter.

The summary table given below lists, we believe, a rather impressive record of accomplishments on the part of most of the sources.

Summary of Sewage or Industrial Waste Disposal Projects Completed or Under Construction in the Red River Conference Area since September 1965 (As of November 1967):

Source: American Crystal Sugar Company, Crookston. Project: Separation of condenser water. Diversion of sewage to city.

Source: Crookston. Project: Separation

of some storm sewers.

Source: East Grand Forks. Project: Separation of some storm sewers.

Source: Fergus Falls. Project: Separation of some storm sewers. Chlorination of sewage plant effluent.

Source: Halstad. Project: Sewage treatment works.

Source: Moorhead. Project: Sewage treatment works. Chlorination of sewage plant effluent. Separation of some storm sewers.

Source: Wolverton. Project: Sewage treatment works.

There are a few comments on the original Conference recommendations I would like to make. It probably has been noted from our statement that limited progress is being made in regard to the sewer separation and nutrient problems, and there are good reasons for this. In both cases the reasons are that generally applicable and really satisfactory solutions have not yet been economically developed, and such remedies as are available invariably are extremely costly. I would therefore suggest that the Conferees agree to defer further action on these two items until the effects of the other improvements on the river can be determined and/or until better solutions are demonstrated by the Federal Water Pollution Control Administration. Also, the progress of the sewer separation projects should be made contingent upon the availability of Federal grant funds, with project completion periods ranging up to as much as ten years for particular projects where there is sufficient justification.

You will recall further, Mr. Chairman, that in our statement of September 1965 we made two recommendations for further studies on the part of Federal agencies. We believe there is still ample justification for these studies and again make such recommendations, as follows:

1. The possible future pollution effects of the proposed Garrison Diversion Project with respect to salinity in the Red River of the North should be studied more intensively, and plans made for possible alleviation of such effects, if found.

2. The potentialities for greater augmentation of low flows in the Red River by construction of additional reservoirs or diversions should be given serious consideration after the municipal

sewage treatment works are operating up to or over 85 percent BOD reduction.

Flow augmentation and salinity control will become critically important in the future as agricultural uses of the river increase and our industries and population grow in magnitude. In view of the recent establishment of the Souris-Red-Rainy River Basin Commission, which is charged with developing a long-range coordinated plan for the use of the water resources of this area, it is suggested that this organization be requested to undertake the studies mentioned above and report thereon to the Conferees when this meeting is again convened.

We wish to reiterate our appreciation of the opportunity to participate in this Conference and present our views.

It is the consensus of this Agency that Minnesota's record speaks for itself, and that the progress made in providing sewage and waste treatment works in this area has been most encouraging. Where progress has been lacking you may be assured,, Mr. Chairman, that the Agency will pursue whatever course is necessary to achieve conformance with the schedules recommended by the Conferees to the end that the quality of these waters will be maintained and enhanced for all proper uses now and in the future.

I thank you.

CHAIRMAN STEIN: Thank you very much.

MR. BADALICH: Mr. Chairman, I also have representatives from the different municipalities that will speak on that.

CHAIRMAN STEIN: Let me hold this for comment first, because it may get too big.

Are there any comments or questions?

MR. FISK: I have one, John.

Do you have any comments to make relative to the event last September on the oxygen depletion in the Red River when we got down to zero?

MR. BADALICH: Could I prevail upon my staff, Mr. Fisk, who are familiar with the situation to answer that?

MR. FISK: Along with that, with this going down to zero, this would contravene your State standards, is this right?

MR. BADALICH: Yes, it would.

MR. FISK: You don't have any indication of why this thing took place last September?

MR. BADALICH: Mr. Smith..

MR. SMITH: I am Lyle Smith, Minnesota Pollution Control Agency.

It would appear on investigation that this occurred at the time the Moorhead sewage treatment plant was placed in operation, when they switched from the trickling filter plant to the new activated sludge plant.

CHAIRMAN STEIN: Are there any other comments or questions?

Do you want to answer that further?

You have raised a lot of interesting points and I think it is a very comprehensive statement, indicating a tremendous amount of progress in Minnesota. I am pretty sure a report like this, if you have been dealing with pollution control situations, indicates we are right in the midst of a progressive operation, and that is why we have these progress meetings. I think the new Minnesota agency is to be commended for this progress report and the clear way that they have stated the problem and approached the issues. This is a wonderful thing, particularly from a relatively new agency such as yours.

Now, let me take some of the possibly

easy ones first.

I agree that we should have the study done on the effect of the discharges on salinity. This is going to be really a major problem in here in water resource management, as is the silt problem.

MR. BADALICH: Yes.

CHAIRMAN STEIN: If we clean up all the pollution we have been talking about here and we are still going to have a salinity problem and a silt problem in the Red River of the North, we are going to get complaints from the public and they are not going to feel they have a clean river.

Aren't we doing this, Garry, these studies, now?

MR. FISK: Yes, we are.

CHAIRMAN STEIN: I have several problems. If you want to make the recommendation or the Conferees want to make it, perhaps we should.

However, part of your recommendation says that the new Commission should do this. Now, I am hesitant, without having them as a Conferee, to delegate to them the job. You know, this is like three people getting together and saying, "We recommend this project and we are asking a fourth party, who isn't a party to this, to do it." I don't know, in a sense, what their budgetary or staff problems are. I think that is why these commissions were set up. Maybe we can discuss that in the recess or something with the representative there, but we might want to couch that in broader terms and try to get the job done where we can, because I don't know that any of us are in a position to speak for the Commission. This work should be done and has to be done.

Mr. Fisk, are we doing something?

MR. FISK: Yes, we have a mathematical model made up now for the Red River for some parameters and we are working on this. We are working with the Bureau of Reclamation and we are also checking very closely with the Minnesota State Department of Health, because we are quite concerned about what the mineral increase may be in the Red River by diversion of the Missouri River across for irrigation.

I understand that the Bureau of Reclamation has also given it a lot of consideration and they are studying the problem of possibly going to sprinkler irrigation instead of this flood irrigation, which in this case will again help to relieve some of the problem.

But it is not something which is going through blindly yet. It is being looked at by Minnesota, and North Dakota is very concerned with this as well.

CHAIRMAN STEIN: I think in many of the new projects we are giving this a careful examination as to the effect on water quality, particularly on salinity. By the way, I will say that the Bureau of Reclamation has this very, very much in mind with the new projects, and this is of prime importance here, because I do think--maybe I am the incurable optimist--we are going to lick this municipal and industrial pollution problem in the Red River of the North.

Our big residual problem in this area--once we get that licked--is to be able to handle the salinity problem and to augment low flows when you have maximum treatment and still the quality drops off to something like a zero for whatever reason.

All right.

MR.BADALICH: Mr. Stein, let me clarify

the position of our Agency. This was a suggestion that probably this organization, the Souris-Red-Rainy River Basins Commission, undertake this study as a suggestion from our Agency. It does not necessarily say that we as Conferees should recommend this as one of their projects. I don't believe we have jurisdiction over them. But we are suggesting that this would probably be a very good project for them to undertake.

CHAIRMAN STEIN: The Conferees could make the suggestion. But I am saying that if you as Conferees recommend this project and then we put this before Secretary Udall and if he approves it and thinks it is a good thing and embraces it in his recommendation, he will take it very seriously.

I would prefer--and again we do this with your Agency--to give him leeway and flexibility to see how this can be done. I think that agency is the appropriate agency, at least the coordinating agency for this project. But if we are going to really put this in high gear and have this meaningful, I think Secretary Udall would be able to work with a little broader determination if the

Conferees were to give him the flexibility of finding the resources to get the job done.

Again I think I would like to talk to these people to see what their interest is, because we certainly don't want to embarrass anyone by giving them a project when they may feel they are just organizing and can't take it on in time to achieve the results we will have to have.

MR. BADALICH: Yes.

CHAIRMAN STEIN: One of these questions, and I may have missed this, we had something on wastes from potato plants at Grand Forks. Was that covered in your statement?

MR. BADALICH: I don't believe it was.

CHAIRMAN STEIN: I don't believe it was.

MR. BADALICH: No.

CHAIRMAN STEIN: I am just spotting it because I think if someone is going to talk--

MR. GADLER: Mr. Chairman, we do have somebody here from the potato--

MR. BADALICH: Well, Grand Forks, and I believe Mr. Van Heuvelen.

CHAIRMAN STEIN: Oh, yes, I am sorry. This is my error.

MR. BADALICH: We have East Grand Forks.

CHAIRMAN STEIN: Yes, this is my mistake.

Again let me see if I can go to the industrial wastes, particularly American Sugar. The Conferees indicated that there was to be an April 1, 1968, date, but this could be expanded until April '69 where extensive construction is necessary. It looks like the American Crystal Sugar will not meet the '68 date, will meet the '69 date in most cases except where they are going to finish in September '69, and the April '69 will not be met even **then,** is that correct?

MR. BADALICH: I think I should correct you, Mr. Stein; it should be April of '68. I believe our recommendation stated that we shall meet by April '69. We feel from the reports we have gotten from American Crystal Sugar that they will be able to meet these requirements by September or before the actual canning season of the fall of 1968.

CHAIRMAN STEIN: Before the fall of '68, right?

MR. BADALICH: Right.

CHAIRMAN STEIN: However, there was one that you talked about September '69.

MR. BADALICH: Yes, there was indication that the mill at Moorhead would probably take until September of 1969.

CHAIRMAN STEIN: In other words, that would be another year?

MR. BADALICH: Yes, it would.

CHAIRMAN STEIN: By the way, I think you and the sugar company are to be commended for meeting these dates. There is always a little slippage. I don't believe that the kind of report we have here indicates anything other than real substantial compliance. In my opinion, that is pretty good.

Now, I do think that the indications of your municipal program sound pretty good too, particularly, I think, with the new Moorhead plant from Minnesota. The municipal waste load presumably is under control. And as I read it, almost all your communities, and maybe we should go down the list, will meet this April '68 date, with a few exceptions where you indicate they will be shortly thereafter.

MR. BADALICH: Yes.

CHAIRMAN STEIN: However, there were certain communities you mentioned where you said they were making substantial progress without any reference to a date. Does that mean that they will be near that April 1968 or that there is no information on what they are going to do?

MR. BADALICH: In some instances, Mr. Stein, communications we get from the municipalities is that the compliance will be during or say after the completion of the 1968 construction season. A lot of the programs are geared now where they are letting out contracts or considering bids, and so on and so forth, but we have to have the '68 construction season to fulfill this requirement so that the period of the summer of '68 will be more or less the beginning period and also it will show completion at that particular time.

CHAIRMAN STEIN: Let me see if I understand this, because if we do, I think we are off and running.

That all the municipalities you have mentioned will have their work completed during the

1968 construction season? There won't be any substantial lag?

MR. BADALICH: I would say that not all of them, but I would say that the greatest majority of them will have their work completed.

CHAIRMAN STEIN: Again, this is typical of a progress meeting in all these cases. I think it would be hlepful if we could get the specifics city by city. This is helpful for any State programs as well as ours, which are going to be completed and which are not, so we can make all the effort to be helpful and concentrate on these cities.

As I said, I think this is typical of any progress meeting and compliance operation. When you set up a plan and try to be equitable for everyone to move on the river basin at the same time, as we did here after the enforcement Conference, this is unique. You know the facts show that when this happens and everyone moves along uniformly it indicates we probably aren't living in a democracy, which, if course, we are. Some move faster than others and for good reason--necessarily so. But I believe for the purpose of the State agencies, the Federal agencies, and just as importantly the outside groups and the public and the people who are doing the job, we should be able to indicate city by city which are going to be completed.

I would say again, and I am just expressing a point of view, that completion of construction by April 1 during the construction season of 1968 I would consider to be certainly substantial compliance with the recommendations and the reflection of a very good and aggressive program. But we shall spotlight with clarity the communities which will extend beyond the '68 construction season and just what they are going to do.

MR. BADALICH: All right.

CHAIRMAN STEIN: Again I think in relation to the storm water separation and the nutrient problem, no one is going to ask anyone to do the impossible. I think you recognize the problems as well as we do--both of these are very significant problems. It is fair to say that if anyone has had a reasonable solution to the nutrient problem and can make it work everywhere, I don't know about it.

MR. BADALICH: We don't either.

CHAIRMAN STEIN: And I don't think the people here know about it.

I don't know if you people in the audience are familiar with the nutrient problem, but nutrients do create either an algal growth or a weed growth in the stream. These plants grow and then they die and they use up oxygen, and if you are dealing with a slack water or a lake, they may create some very severe problems. As a matter of fact, as our good friends from the Department of Agriculture talked about, if we licked the salinity problem and we licked the silt problem--we get that water having less salt in it and keep the silt cut so more light can penetrate--we have exacerbated the problem with nutrients. Now, the nutrients generally are the same kind of thing you would use as a fertilizer on your lawn or crops. The basic ones are nitrogen, phosphorus and potash. The theory that is presently going on is that you don't need very much potash and you just need a little phosphorus to trigger this off. Nitrogen is ubiquitous, but you try to keep it out whenever possible. In many cases, the critical element that it is felt can be controlled is the phsophorus.

The question is, how do you get these phosphates out? Without pointing any fingers, it is a fact of modern life that the per capita average of phosphates put out is about three and a half pounds per person per year. At least the Federal estimates and the estimates we have had from some of the State agencies in the midwest are that about one-third of one pound comes from humans and about two and a half pounds comes from detergents. The detergent industry disputes that. They think maybe the figures should be the other way.

This is the kind of argument that really, whichever way you do it within those limits, they are both putting in insignificant amounts. The fact that we have a detergent industry based on a phosphate base no doubt creates the problem. But even if we did eliminate all the phosphates from the detergents and you still had this pound a year coming out from the humans, we are not sure that this wouldn't be enough to trigger off its growth and contribute to the nutrient problem.

So far we have not yet been able to come up with a reasonable method--when I say "we" I mean anyone--no one has been able to come up with a reasonable method to centrally treat the wastes on an economically sound basis and keep these nutrients out of the stream. The ordinary sewage treatment processes, even the most sophisticated, such as has gone into Moorhead, don't do a complete job of reducing the nutrients.

You may have heard that they have been working on this very, very carefully down in the South. They thought they had a solution, I think, in San Antonio. They developed the process, then they stopped what they were doing, and the nutrients increased. Then they exercised their controls and they cut the nutrients way down, about an 80 percent reduction, and they thought, well, here was the answer. Then we tried it in other plants and in other parts of the country and it just didn't work.

This is a very frustrating operation. I am not sure it is related to temperature, because I don't think we can make it work even down south. So this is one thing that we are doing in the research field.

Of course you can get out nutrients, and we have done it. We had radioactive phosphates coming out of the Hanford plant at one time or at least radioactive levels we and the health people thought were significant. I am not sure that the AEC shared our view. But with the use of a flocculating element in alum we got out the phosphates. Presumably it can be done, but imagine treating all your sewage effluent with that. It would run your cost up.

This is a problem, along with the salinity problem, that is going to have to be met in the Red River of the North Basin, as in many other river basins in the country, before we are going to have the quality of water we need. Again I would like to emphasize this.

I think we have the evidences here of an excellent State program and I hope an excellent cooperative Federal-State program, but you should recognize the limitations of what we are doing. All the work we are doing here is not going to really get at that salinity problem or get at the augmented low flow problem or get at that nutrient problem. And we are just going to have to have, at least in the nutrient problem, more coordinated work to lick that one and possibly a breakthrough in research.

In the salinity problem we are just going to have to work out some real sophisticated studies and try to manage our runoff and releases on an integrated basis in the basin in order to lick that one, and I can say that real fast. But if you have ever tried to get people together on this, you all know it is not a very simple task.

So again let me emphasize what I am saying. The pollution program we have here is largely going to be designed to eliminate the oxygen deficiencies in the Red River and to keep the bugs, the pathogens, down. In other words, you won't have a health hazard and it won't be injurious to aquatic or other life or other biota due to oxygen-consuming wastes.

The other aspects of the problem are going to be relatively long-range aspects, and we haven't set dates on those; as Mr. Badalich points out, we can't because we really don't have the answers. This isn't a question of money or anyone ordering anything, because if you were a dictator you could wave a wand and get all the people to jump and I don't think you would know how to do it. Let me say that another way. I don't think you could know how to do it with anything approaching what we consider reasonable cost at the present time.

Are there any other comments?

MR. FISK: Yes. You made a remark something about construction depends upon the availability of Federal funds.

MR. BADALICH: That was a suggestion on our part, Mr. Fisk, that in order to expedite and probably accelerate the sewer separation program not only in the Red River Basin but throughout the country, I think there is probably a necessity that the Federal Water Pollution Control Administration take a long look at probably providing construction funds for a sewer separation program as we do in sewage disposal facilities. I think the only way we can get this program accelerated and be able to move on it is by this particular method or this type of industry.

CHAIRMAN STEIN: I am glad that came up. Let me speak very briefly on that.

We have been before the Congress on this matter. You are fortunate in this area, although you have a real bad problem here, in dealing with sewer separation. However, if you begin looking at those old eastern cities--you don't have to go far east, from Chicago on east--and talk in terms of sewer separation, the costs are astronomical. When we try to work something out, and we have a program in Washington, D. C., for example, the cost of sewer separation kind of startled some people.

It didn't startle me, but I tell you what stopped me. We would have closed that city to automobile traffic for 15 years, and the cure is worse than the disease.

The Congress, in recognizing the painstaking way that we are going to have to do sewer separation and the large costs, has set up an experimental program hoping to come up with a better solution. I don't know that that is in sight at all. Maybe it is. Some people have ideas on projects. I think, though, what we have done, and this was mentioned in an urban renewal area, where there is urban renewal we ask for separation and we have a Federal policy on that with HUD, and where someone is going to do street repair work and rip up the street anyway, the thing to do, at least down there, I think, is try to get this done. And this is going to be a long-term program. I do think that the Congress is going to have to come to grips with this problem in the future.

But again I have one suggestion for you here. This is going to be a very major political situation when it comes up. Perhaps you can't do it in this area of the State. Maybe you can't do it down in the Minneapolis-St. Paul area and you will have to wait for the big financing portion. But I think for people located in areas such as yours it will be cheaper for people,considering constantly rising construction costs and what is happening, to move ahead as fast as you possibly can with your separation program rather than to wait for Federal funds.

Also let me give you the magnitude of the operation. I know you have a little of this in Minneapolis-St. Paul. But if we are persisting in the United States to pave the whole countryside, say, from Boston down to Richmond with these resultant runoffs, even if we treat all the wastes, unless we have some kind of a separation program, we are just going to be left with the residual of one big whopping pollution problem, and this is inevitable, this is coming.

My suggestion is that where you have a relatively easy operation, it is going to be cheaper if you work for this. I am not sure, and I want you all again to be realists, if we are talking in terms of a separation program, I don't know that that can be designed just to handle situations of the town size you have laid out here. And if we can't design it or get it through the Congress for that and we have to consider the big cities, I don't know that we are going to make it.

O. K.

MR. BADALICH: Mr. Stein, let me make it clear that the Agency is not sitting still and not doing anything on storm separation just because of non-availability of Federal funds. We have issued orders to the metropolitan area already, St. Paul and Minneapolis have already got orders, and we expect them to have a sewer separation program in a matter of ten years. My former municipality of South St. Paul is also and other communities in the

State of Minnesota. But we feel that a ten-year program is reasonable.

However, we feel that this ten-year period could be cut down and the program accelerated to a great extent if Federal funds were available. I mean these orders as far as our Agency is concerned are binding and we expect these people to make this sewer separation or find some other practical method or means of handling storm sewer wastes. In some areas, I know in my city of South St. Paul, we have a research and demonstration grant, where we are going ahead and probably using storm and ponding areas to take this storm flow overflow and in turn during the off-peak hours through the sewage treatment facilities we will run it through the plant for sedimentation and chlorination. This is one treatment. I believe other parts of the country are using storage underground or above ground or whatever it might be.

But I feel in order to accelerate this program it would be well if Federal funds could be made available in the future.

CHAIRMAN STEIN: Right, I would agree.

MR. FISK: The big point I was trying to make here, I don't think the construction should be dependent upon the availability of Federal funds.

MR. BADALICH: It isn't.

CHAIRMAN STEIN: No, I don't think they are. Again let me just give you for what it is worth the magnitude of the problem. To get a reasonable alleviation of the storm water problem in Washington, D. C., as compared to the improvements in their sewage treatment plant, I think after the enforcement conference the improvement and the sewage treatment plant cost about $14,000,000. They already had a plant but they stepped it up; they had to. The interceptors to alleviate the storm water overflow and cut it down and put it out in relatively innocuous places cost over $100,000,000. This will give you an idea of the magnitude of the costs of what we are talking about. This is very expensive.

Do you have anything else?

MR. FISK: What did you say on Fergus Falls? Are they going to meet the date?

MR. BADALICH: As far as Fergus Falls is concerned, we think at this particular time, from the available information we have, that they will not probably meet the specific deadline of April 1, 1968. We have not received any specific proposal from them, but I believe their representative is here from Fergus Falls who maybe will be able to remark on this at a later time.

MR. FISK: Is there a question of whether they can even meet April 1, 1969?

MR. BADALICH: I would think there, Mr. Fisk, that Fergus Falls could probably answer this better than we can, because we have had no specific proposals from them at this time.

MR. FISK: That is all I have.

CHAIRMAN STEIN: All right, thank you.

Do you want to continue?

MR. BADALICH: Yes, I would like to.

CHAIRMAN STEIN: Let me ask the local people here, what is the best situation on lunch? Is it better to go earlier or later?

UNIDENTIFIED MAN: Mr. Chairman, may I make a statement off the record about lunch?

(Off the record.)

MR. BADALICH: Mr. Chairman, I have a letter that I received this morning from the City of Moorhead, and I believe Mr. Lyle Smith will probably read that for the record.

CHAIRMAN STEIN: Yes.

Mr. Smith.

STATEMENT OF
THE CITY OF MOORHEAD

MR. SMITH: This is a letter from the City of Moorhead, dated December 4, 1967, addressed to Mr. John P. Badalich, Minnesota Pollution Control Agency 459 Board of Health Building, University Campus, Minneapolis, Minnesota.

"Dear Sir: In accordance with your request of November 13, 1967, we are submitting the following information:

"1. The City of Moorhead has awarded a contract and has almost completed construction of additions to the sewage treatment plant. The design was approved by the Minnesota Water Pollution Control Commission and the Federal Water Pollution Control Administration and the revised plant will meet the criteria required by the 1965 Enforcement Conference. The new portion of the plant has been in operation since September and it is anticipated that the old portion of the plant will be remodeled and in operation on or before December 8, 1967.

"2. The Moorhead City Council has directed the engineering department to prepare plans and specifications for storm sewer in those areas of Moorhead that still have a combined sanitary-storm sewer system. These areas are in the older sections of Moorhead and the records of existing utilities are very poor. It has been necessary to do a large amount of survey work to determine location, size and elevation of existing underground utilities. Most of this survey work has been completed and the engineering department is working on plans for the proposed storm sewer project. It should also be brought to your attention that the amount of combined sanitary-storm sewer system within the City of Moorhead has been greatly reduced in the past 15 years. The City has constructed several storm sewer projects in areas previously served by combined sewers.

"3. The new sewage treatment plant has facilities for chlorination of the effluent and the operator has been chlorinating the effluent since the new portion of the plant went into operation.

"Respectfully submitted, (signed) George T. Anderson, City Engineer."

Mr. Anderson and some of the additional representatives of the City are present.

CHAIRMAN STEIN: Very good. Is that a secondary plant?

MR. SMITH: Yes, this is an activated sludge plant.

CHAIRMAN STEIN: Do you have any idea what the BOD reduction would be?

MR. SMITH: They will meet the 25 parts per million BOD in the effluent. I can't recall the percentage.

CHAIRMAN STEIN: Are they chlorinating all year round?

MR. SMITH: They will chlorinate all year round, yes, sir.

I believe at this time, Mr. Johannes has some comments on Mr. Fisk's question on the low DO in the stream.

CHAIRMAN STEIN: Mr. Johannes.

MR. JOHANNES: Just to the extent that I think there may still be some question about whether or not this low DO actually was influenced by construction changes or operational changes at Moorhead. We have tried to check this out in some detail, and it appears that there is good reason to think that this was probably a natural condition, it wasn't associated with any man-influenced incident.

However, possibly Mr. Fisk has better information on that. If so, I think we would appreciate being enlightened too.

MR. FISK: We do not have any more information than that to speak of. That is the conclusion which we have drawn after a study which we made. By the way, Mr. Otmar Olson, of our Grand Forks Office, is here now. He, one man from our office and one man from Cincinnati, I believe it was, made a brief field survey of the river following the incident, and at the time of the survey the DO had picked up. They could not pinpoint any waste source which they would say was to blame for the zero DO either.

MR. JOHANNES: Somewhat the same thing happened with our monitoring stations. Our samplings were too far apart in time to be able to get any definite information out of it for this particular incident.

CHAIRMAN STEIN: Thank you.

MR. BADALICH: Thank you, Joe.

CHAIRMAN STEIN: Yes.

MR. BADALICH: I do have, Mr. Chairman, Mr. James L. Vigen of East Grand Forks. Maybe he would like to make an additional statement to what we have already received from East Grand Forks.

MR. VIGEN: We don't have any statement to make.

MR. BADALICH: Thank you.

CHAIRMAN STEIN: Are they going to be finished?

MR. BADALICH: Yes, they will be in conformance, as far as we know, from all information we have available at this time.

CHAIRMAN STEIN: Right. When we go over each city, this is the key question. If you could handle it as you call them, we could save time and I won't have to repeat that question for the record.

MR. BADALICH: Let me start alphabetically here, I was skipping around, and maybe we can get it done that way.

We do have a representative from Breckenridge here, Mr. John L. Walkup, the Consulting Engineer. Would he want to make an additional statement? They will be in conformance as far as we know.

MR. WALKUP: No. We are complying with it according to the letter that you received.

MR. BADALICH: Thank you.

Next, Mr. Chairman, we have Climax. I believe there is a representative here from Climax.

We have granted these people a priority on the Federal grant application program and we believe that as soon as the financing can be arranged that we will probably proceed.

STATEMENT FOR
VILLAGE OF CLIMAX, MINNESOTA
KENNETH ERIE, ATTORNEY

MR. ERIE: Yes, I am Kenneth Erie. I am from Crookston, Minnesota, but I am speaking on behalf of the Village of Climax as the Village Attorney.

As far as Climax is concerned, the plans are all ready to go, we are ready to ask for bids, but our problem is one of economics. I know that you gentlemen are mainly concerned with pollution, and how it has come about, so long as the pollution is cleared up, really probably doesn't have too much significance to you. But it does to a village of about 270 people.

Most of you probably don't know where Climax is except it is a dot on the map and has got pollution written all over it, but the 1960 census indicated that Climax was about 310 people. A nose count now indicates it is about 270. I think the assessed valuation in that small community is about $150,000 and this project is about $133,000. I think other than for the school, if you were to offer to purchase all the real estate in Climax you might be able to buy it for the amount of the cost of the project.

But again, this is our problem. And we do have this one problem in this regard. We are attempting to obtain our financing through a loan. We have a small grant and we are attempting to receive our financing from another arm of the Federal government, FHA, and this particular branch of the government wants action and the other one doesn't seem to care whether they tell us today or tomorrow whether or not we are going to get the financing. This would be repaid on a user fee basis and it would be over the years. We are not asking for money, all the money to create this project, but we would like to have some place where we can borrow it at a reasonable rate of interest.

As I say, our assessed valuation is probably not much more than the project, and I have qualms myself about whether or not we can sell the bonds. Moody indicates that our interest rate now would be from about 4.9 to 5.5 and this was before the Federal Reserve kicked their interest up to 4½, so I don't know what it is going to be now. We have about 80 families in Climax, and less the grant, if the cost was $100,000, this is more than $10,000 a family.

Again I am sure that you are probably not too concerned about how it gets done.

CHAIRMAN STEIN: No, no.

MR. ERIE: But I would like to put in the record the dilemmas of a small community.

CHAIRMAN STEIN: Let me say this. People sometimes have said, and I hope they think so, that we are benign enforcers, but we are concerned. Now, the point is, I think I possibly can speak for the State people and I hope for ourselves, we may be very firm with the orders and requirements and put them out, but once this is done, anything we can do to help you with your financing or help you get your financing or move a project along, our door is always open.

If you have any problem with another Federal agency and you feel you have this case and you want the urgencies split up, either you get in touch with Mr. Badalich or you can call us. You know, I take collect calls in Washington--

MR. ERIE: They would have to be collect.

CHAIRMAN STEIN: By the way, that isn't that big an offer, because we have tie lines through the country and it costs us what a local call costs you. But we do do that and we will make these representations and try to get this work out if we can be of any help. We prefer that you work through your State agency.

MR. ERIE: They have been most co-operative.

CHAIRMAN STEIN: And we will do that. As a matter of fact, just the other week I spoke to John Badalich about another small community in Minnesota that we had that same problem with. Now again I recognize the problem that you really have in the small community, and yours is one of the worst.

If this is going to make you feel any better, since you mentioned Breckenridge, it is not really the worst. The worst one, imagine a community of 270 or 300 being a resort community and having a summer population of five or ten or twenty thousand and having to build waste treatment facilities not for your little village but for that and then try to put this on the tax base. I really think that those communities may really be at the bottom of the totem pole in the American system of financing rather than yours. But you are just one notch up.

Anything that we can do, I am sure our regional office or the State will try to do, or if you want us to make contact with HUD or any other Federal agency for you to meet this, we will be happy to do it. I don't think this is giving any secrets away. We have been successful quite a few times.

MR. ERIE: Well, fine. I am glad to hear it.

CHAIRMAN STEIN: Again let me make this point, that there is only one way to clean up pollution in this country: you have to take every source, I don't care how big or how small, whether it is the largest city or the largest corporation in the country or small villages like Climax, and you have to get them all. I don't think, as a public official, that we give any more time to some of our major companies than we will give to yours to get the problem solved. I don't think the problem is complex and maybe we don't have to, fortunately for all of us, put the time in we have had to do for some of these major operations, but we are available.

But don't feel slighted or don't feel because we are regulatory people or enforcers that you can't call on us for help.

MR. ERIE: Thank you. And in conclusion, I hope that the financial problems for Climax will be resolved so we can let the bids and start the construction.

I think I made a misstatement. Eighty

families at $10,000 would be $1,000 apiece. I guess my mathemetics isn't too good.

CHAIRMAN STEIN: Thank you.

MR. BADALICH: Thank you, Mr. Erie.

Mr. Chairman, next we have Crookston, I believe. Our reports indicated that they are in compliance as to the quality on its effluent and they are undertaking a program of storm sewer separation.

I believe representatives are here. Mr. Widseth is the City Engineer.

STATEMENT FOR

CITY OF CROOKSTON, MINNESOTA

RICHARD A. WIDSETH, CITY ENGINEER

MR. WIDSETH: My name is Richard A. Widseth. I am the City Engineer for and speaking on behalf of the City of Crookston, Minnesota. We thank you for the opportunity to present a statement at this meeting with regard to the status of our pollution abatement program.

On May the 4th, 1966, the City of Crookston presented testimony before the Water Pollution Control Commission at the Public Hearing on Classification and Establishment of Standards of

Water Quality and Purity for the Red River of the North and Major Tributaries Thereto, which was held at Moorhead, Minnesota. That testimony is part of the record and we still feel that the information set forth therein is pertinent and factual.

In our testimony at that hearing, we objected to the State Health Department recommendation that the City of Crookston be required, by April 1st, 1968, to construct additional sewage treatment works. We objected to this recommendation because we felt that the need for improvement to our treatment works should be determined by its ability to comply or not to comply with the standards as they are finally established.

At that time we further stated that we felt there should be some correlation between quality and quantity of sewage effluent, and quantity of flow and condition of the receiving waterway. We further objected to the proposed minimum standards of 30 milligrams per liter for total suspended solids and 1,000 most probable number per 100 milliliters for total coliform organisms. This objection was based upon the fact that the Public Health Service studies indicated that much of the time the river itself contained concentrations in excess of these quantities and we felt that it was unreasonable to attempt to clean up a river with sewage plant effluent. We also felt that a sewage effluent standard which was more restrictive than water supply standards was neither practical nor realistic.

In the final Order as it was adopted, coliform count limits were changed to 5,000 most probable number per 100 milliliters and suspended solids measurement was limited to that "originating directly from or directly attributable to the sewage per se".

In the "Findings of Fact, Conclusions & Order" of the Water Pollution Control Commission of the State of Minnesota dated July 28, 1966, there are several items which directly affect the City of Crookston.

One of the first findings is with regard to the uses of the designated waters. This section states that "The primary uses of these waters now and in the forseeable future are domestic and industrial water supply". It also states that "Other present and potential uses include recreation, stock and wildlife watering, and disposal of sewage and waste effluents".

Under the section entitled, "Pollution Conditions of the Designated Waters," it was found that "Partially treated sewage effluents are discharged into these waters from Fergus Falls, Breckenridge, Moorhead, East Grand Forks, Crookston and Wolverton and raw sewage is discharged from Halstad and Climax." We contend that any sewage effluent discharged from any treatment system is "partially" treated.

It was also found that "undesirable slime growths existed in the river below Crookston, Moorhead and East Grand Forks by reason of the discharge of industrial wastes and municipal sewage during extended periods of the studies made by the U. S. Public Health Service," and that "The polluted condition of these waters was considered to be of such magnitude as to warrant the intervention of the Federal Government."

This last statement disturbs me, because it is a fact that during the last 10 to 15 years the Cities of Fargo, Grand Forks, East Grand Forks, Crookston, and others with which I am not familiar, have spent many millions of dollars on sewage treatment improvements.

They have done this while working closely with their own State Health Departments and they have improved conditions manyfold in the Red River Basin.

Now, after all of these improvements have been made, the Federal government suddenly finds the polluted condition of these waters to be of such magnitude as to warrant their intervention.

In October of this year in New York City at the Water Resources Engineering Meeting of the American Society of Civil Engineers, the Federal Water Pollution Control efforts were discussed. The October 26th issue of the Engineering News Record carries an article on this meeting which was titled "What Price Clean Waters?" I would like to relay here some of the comments made at that meeting which appear in this article.

The first is by Edward J. Cleary, recently retired Executive Director of the Ohio River Valley Sanitation Committee, and I quote:

"Federal pronouncements and policies reflect an obsession with the notion that the nation is confronted with a choice among absolutes--of clean water vs. dirty water, or of fish vs. factories. It is one thing for the national program to hold forth the promise of achieving stream cleanliness. It is quite another matter when performance for this laudable objective is geared to the assumption that the quality of the river water must be equated with the sanctity of holy water."

And another quote from this article by Samuel S. Baxter, Philadelphia Water Commissioner, and I quote Mr. Baxter:

"I have been an advocate of matching or comparing benefits of river cleanup with the cost of such work. One of the dangers of taking such a position is the possibility of being labeled as a dirty polluter or as a stand patter, and if an engineer suggests that there may be a limit on expenditures of funds for a given project, or that priorities might be established among various projects which require public funds, he may be told to go back to his slide rule and stop trying to be an economist."

I believe that I, too, must be an advocate of matching or comparing benefits of river cleanup with the cost of such work. It would be nice to know what the benefits would be if the City of

Crookston were to spend another $1,000,000 improving its sewage collection and treatment systems.

One last quote from this article, a statement by J. Floyd Byrd, Head of Procter & Gamble's Pollution Control Section, and I quote:

"Treatment should be evaluated in terms of public need. Secondary treatment for all waste water is a utopian idea. The Water Quality Act of 1965 doesn't mention degree of treatment; it just says treatment should enhance the quality of the water. We should use the river's natural assimilative capacity to handle some wastes. If a city has a stream that can assimilate pollution, then we should put in primary treatment for asthetic reasons and forget about secondary treatment. The money we save by omitting secondary treatment could be used for Urban Renewal or something else."

This statement by Mr. Byrd contains a good deal of common sense. It reminds me of a man who would like to drive a new Cadillac, but finds that if he does buy a new Cadillac he won't have any money left to eat, so he must compromise, and he finds that by driving an old Ford and having money left to buy food he is better off and quite comfortable.

RICHARD A. WIDSETH

Well, that's enough on Federal policies. It's always easy to criticize the Federal government, and thank God we live in a country where we can do it without being put in jail.

Getting back to the primary use of these waters which was found to be water supply; from visits with our downstream neighbors we do not find that they are experiencing any particular difficulties in water treatment which can be traced to sewage discharge from the City of Crookston.

With regard to recreational use, I have a selfish interest here in that some of my friends and I spend considerable time every fall hunting ducks and geese on the Red Lake River below Crookston. If water pollution is creating a problem for fish and wildlife in this reach of river, it is not apparent and, to my observation, does not appear to be serious.

With regard to other recreational activities, it is apparent to those of us who personally observe the natural conditions of this river that it will never be suitable for swimming beaches, resorts, boating or extensive use for fishing.

Those of us who live with and observe

this river throughout the year know that during certain times of the year it is "Too thick to drink and too thin to plow," and this would be true whether or not the cities and industries existed.

The Order which the City of Crookston received following the establishment of standards reads as follows:

"The City of Crookston shall have in operation on or before August 1st, 1967, facilities for effectively disinfecting the effluent of its sewage treatment works and on or before April 1st, 1968, shall have in operation treatment works for effectively reducing the biochemical oxygen demand of its sewage and after that date no effluent in excess of the standard shall be discharged from said treatment works to the Red Lake River, and on or before April 1st, 1967, the City shall have separated its sanitary sewage collection system from its storm sewer system and after that date shall not discharge any raw sewage or mixtures of storm water and raw sewage into the Red Lake River or other waters of the State tributary to the Red River of the North."

In February of 1967 the City of Crookston entered into a contract with the engineering firm of Webster, Foster & Weston to evaluate the provisions of this Order and make recommendations with regard to future improvements. Although their studies have not been entirely completed, much data has been collected and evaluated.

In addition to the studies made by our consultant, the City, in cooperation with American Crystal Sugar Company, has conducted extensive BOD testing during the past two years. The studies which have been made and the testing which has been done indicate that during this time the BODs of the final effluent have ranged from 27 parts per million down to 4 parts per million and no discharge has been made to the river which was not substantially in compliance with the standards as established.

Coliform tests which have been made indicate that when the BOD is reduced below 25 parts per million the coliform count will be within the acceptable standard of 5,000 most probable number per 100 milliliters. The most recent test for coliform organisms was performed in October of this year by Dr. John W. Vennes of the University of North Dakota. This sample from the final effluent had a suspended solids content of 32 milligrams per liter, a 5-day BOD of 9 milligrams per liter, and a coliform count of 200 most probable number per 100 milliliters.

Based upon the testing which has been done, it is our contention that we are in compliance with the standards as they are adopted and consequently no improvements to our treatment system are presently required.

With regard to the Order to separate the sanitary sewage collection system from the storm sewer system, the City of Crookston faces a project of enormous size. During 1967 storm sewer construction at a cost of approximately $110,000 relieved flows to the sanitary system in three areas of our City. This work, however, made a very small dent in the total work which must be accomplished in order to comply with this Order.

Although the studies by our consultant are not complete, it is apparent that the problems involved in complete sanitary-storm water separation in Crookston are expensive and unique. I say unique, because most of the area which requires separation is located in low-lying portions of the City which are diked to protect them from flood waters from the Red Lake River. In these areas some sort of provisions for pumping storm water during times of high water in the river will have to be provided at greatly increased costs.

To complete this work within the time limits presently established would place an impossible economic burden on this City. Our present stand is that we probably cannot afford a Cadillac River right now; maybe we will have to live with some slime growths on the bottom of the river for a little while.

Now don't get me wrong. I am not standing here advocating water pollution; I am standing here advocating a balanced public improvement budget for our cities. We need parks, playgrounds, streets, highways, schools, public buildings, good police and fire departments, and many other things.

Let's do everything we can to eliminate water pollution, but let's also spend our money in an intelligent manner.

To demonstrate that the City of Crookston does not advocate a dirty river, let me point out that since 1953 we have spent approximately $1,000,000 for the construction of sewage treatment facilities. In addition, during the past ten years we have spent over a half million dollars on storm sewer projects, specifically to remove surface water from the combined sewer system. This is a substantial expenditure for a City of 8,546 people and we are proud of the fact that we have done at least our share in cleaning up the Red Lake River and the Red River of the North.

The point that we must make, however, is that cities have many needs and we would be remiss in our duties as public employees were we not to attempt to spend public money in the areas where it will do the most people the most good. As we have in the past, we will continue in the future to make improvements to our sewerage system as financing permits, and will make every attempt to work with the Minnesota Pollution Control Agency to achieve the desired results.

We thank you for the opportunity to present a statement at this hearing in behalf of the City of Crookston.

CHAIRMAN STEIN: Thank you.

Are there any comments or questions?

Mr. Badalich.

MR. BADALICH: I would like to make a few comments or questions here, Mr. Widseth.

I think our report did indicate that you are in compliance with the waste disposal facilities, but the thing we did point out is that we are lacking reporting from the City of Crookston. I believe the report you referred to by the doctor I just received on Friday and we had to re-edit our entire presentation because of this. So we would appreciate very much if you would report as we outlined, I believe monthly, and this would be very, very helpful.

MR. WIDSETH: We are hoping to have a quite comprehensive report from our consultants in sometime soon, and I guess we have been kind of waiting on this and I admit our reporting hasn't been good. It will be better in the future.

MR. BADALICH: I would also like to point out the position of the State of Minnesota on our standards. Our standards are based on the intended use of the stream and also on the characteristic of the receiving stream so that these parameters are then used to decide or to give us the technical background on how we should set the standards, effluent standards, on the particular discharging source. So we have taken this into consideration and I don't believe the standards as set forth are impractical and cannot be achieved, and I believe you have shown that in your report.

Thank you.

CHAIRMAN STEIN: Thank you. You know, Mr. Widseth, this is why the Federal government is here, so you can poke at us. (Laughter.)

But you know, Ed Cleary used to be editor of that magazine, that helps getting a big quote, and I am delighted to be out and listen to this stuff. I was kind of in the generation or the wave that argued constantly for the change in notions held by Mr. Cleary and Mr. Baxter which they always put out, and I know after the meeting Ed came through Washington and he wanted to have lunch, but I was out that day.

But I also figured that they had very firm positions and there wouldn't be a change in philosophy in water pollution control until they retired. Now that they are almost retired, Ed is retired and Baxter is an elder statesman, RICHARD A. WIDSETH

I thought the new wave would come up, but I see we still have it. I am nostalgic for those old arguments and I am glad to see it hasn't disappeared from the American scene.

There was always one observation that I loved about this. We have a particular breed of cat in people working in pollution control, and I think Ed Baxter, without putting it on you, indicated why do we want to spend all these millions--he runs the program in Philadelphia--to protect a few shad? We have to clean up slums and stuff of that kind, and new schools, and so forth, and many other city needs.

The problem that I have always had is the kind of engineer we have working in water pollution control who keeps talking about not spending this money and putting it in other areas. I used to think when I was a youngster that maybe this was indigenous to engineers, but then I discovered it wasn't because I never found an automotive engineer who said we needed schools and don't buy that big car for $5,000, and I never heard a highway engineer who said we didn't have to plow through another 6-lane highway because we needed schools. But somehow in this field we have a large group of people who think we don't need the improvements in the field and we need it somewhere else, and this facet of our business has always intrigued me.

However, your point of view is well thought out and certainly we appreciate it. I think again in the American system of things, whatever your philosophies are on a specific, we can, with our system of government, always, I have found, work out an accommodation. As a matter of fact, I have been working on accommodations with Mr. Cleary, Mr. Baxter and Procter and Gamble for 25 years.

And I think we have this in Crookston. If you have a lagoon, as I understand, and the effluent from the lagoon meets the requirements, I think there is no one saying that Crookston is not meeting the water quality requirements. And if the reporting system is worked out between you and Minnesota, everyone will be happy. The question is if everyone is happy with what is coming out of the Crookston outfall and finding its way into the river, we can both afford in this country to have our own philosophies of what should be done with the river.

Thank you.

Do you want to go on?

MR. BADALICH: Mr. Chairman, next we have East Grand Forks. I believe they are in substantial compliance and they do have representatives here. I believe Mr. George Swank and--I am sorry. Oh, we already heard from Grand Forks. I am sorry, Mr. Chairman.

We have representatives here from Fergus Falls. I believe this was a question as far as we were concerned on the progress. Mr. Donald Ronning is here and also one of their councilmen.

Mr. Ronning, from Fergus Falls, would you like to make a statement?

STATEMENT FOR
CITY OF FERGUS FALLS, MINNESOTA
HOWARD J. SOWDEN, SUPT. PUBLIC UTILITIES

MR. RONNING: Mr. Chairman, Mr. Sowden, our Public Utilities Superintendent, would like to make a statement for Fergus Falls.

MR. SOWDEN: **This is a statement on behalf** of the City of Fergus Falls.

The City Council and the Public Utilities Commission on behalf of the City of Fergus Falls recognizes that we are most fortunate in being situated in the geographical area that we are.

We have virtually an unlimited supply of pure clean water from the Otter Tail River. In view of this, the City of Fergus Falls is doing everything possible not to pollute the Otter Tail River.

An example of this is the fact that, without being ordered to do so, we have constructed a filter backwash recovery system and a lime slurry lagoon. Previously to this time these two items have been allowed to flow directly into the Otter Tail River.

We fully intend to comply with the Commission's order of September 29, 1966, and will be in full compliance prior to April 1, 1971.

Statement of Progress:

1. The Wastewater Treatment Plant effluent has been chlorinated since October 1, 1966.

2. One direct source of pollution, and the largest, has now been eliminated by the

installation of a lift station to serve the area surrounding the Lutheran Brethren School. Two other sources were eliminated in 1967, namely that from the City Hall Annex and that from a potato washing complex. The only other known direct source of pollution, the car wash rack wastes from the Minnesota Motor Company, will be eliminated prior to January 1, 1969, once the final section of the business district storm sewer is installed in 1968.

3. An engineering firm, McCombs-Knutson and Associates, was retained to make a preliminary report on our needs to upgrade our Wastewater Treatment Plant. Their report was submitted to the Minnesota Pollution Control Agency on August 3, 1967. This firm has since been retained to make the final plans and specifications. It is proposed that construction will be started before the end of 1968.

4. This City has for many years conducted a program of storm sewer construction. Before the end of 1968 the last of the known combined storm and sanitary sewers will be eliminated once the business district storm sewers are finished as mentioned above.

HOWARD J. SOWDEN

5. For the last four years we have been televising various portions of our sanitary sewer system in an attempt to eliminate suspected ground water infiltration.

6. We also have a program of checking suspected catch basins which may be discharging into the sanitary sewer system.

7. In 1964 this City passed an ordinance requiring that all roof drains now discharging into the sanitary sewer be disconnected. It is expected that compliance will be 100 percent once the business district storm sewers are completed.

8. This City has constructed a 13-acre pond to receive the lime slurry from the Water Treatment Plant. In conjunction with this, a filter backwash water recovery system is being constructed. This operation will be in full use prior to February 1, 1968.

Respectfully submitted, (signed) H. J. Sowden, P. E., Superintendent of Public Utilities Department.

CHAIRMAN STEIN: Thank you.

Are there any comments or questions?

Thank you very much, sir.

MR. BADALICH: I would like to thank Mr. Sowden for this report. Our indication was that we did get a report here and there and never a complete report like this, so we appreciate this very much as far as the Agency is concerned. This will give us all the information we need now on your progress.

Thank you.

MR. FISK: Full compliance for Fergus Falls cannot be obtained before April 1, 1971, is that what you said?

MR. SOWDEN: I use that date because that is the date given us, but we will be in full compliance long prior to that time.

CHAIRMAN STEIN: That is very good.

MR. BADALICH: Mr. Chairman, I should back up here. I missed East Grand Forks. Are there any representatives here from East Grand Forks who would like to make a statement?

CHAIRMAN STEIN: What does your record show, that they are in compliance?

MR. BADALICH: Yes, they are, they are in compliance. They did submit a preliminary report on separation of storm sewers, and that is about the last that is remaining.

CHAIRMAN STEIN: Right.

MR. FISK: That is what the application to HUD was made for, separation of storm sewers?

MR. BADALICH: Right.

Next, Mr. Chairman, we have the Village of Halstad. I don't know whether there is anybody present here.

STATEMENT FOR
VILLAGE OF HALSTAD, MINNESOTA
L. H. BRAKEL, JR., TRUSTEE

MR. BRAKEL: Yes. I am L. H. Brakel, from Halstad. We will be in compliance sometime during 1968. I think we are about 80 percent completed now.

MR. BADALICH: Thank you, Mr. Brakel.

CHAIRMAN STEIN: Good.

MR. BADALICH: Next we have the representatives here from the City of Moorhead. Would anybody like to make a statement there?

MR. ANDERSON: No.

MR. BADALICH: I am sorry, we already

made that statement. That is right.

And the last municipality we have, Mr. Chairman, is the Village of Wolverton. Is anybody here from Wolverton who would like to make a statement?

It is our indication that they will be in compliance by the end of the construction season of 1968.

CHAIRMAN STEIN: As far as I can see, the record is 100 percent, isn't it? There is no one that is out of compliance.

MR. BADALICH: Other than with the storm separation situation.

CHAIRMAN STEIN: That is another item. I mean with the basic treatment plant and effluent.

MR. BADALICH: Yes.

CHAIRMAN STEIN: We recognize the storm sewer, but they still have time.

MR. BADALICH: That is right.

CHAIRMAN STEIN: In other words, I would say for the Minnesota communities, they are all in compliance. Do you have any industries on your side?

MR. BADALICH: Yes, we do. I believe

we do have representatives of the American Crystal Sugar Company here. I don't know whether they would want to make a statement regarding their future expansion.

STATEMENT OF

J. L. PORTERFIELD, VICE PRESIDENT AND GENERAL SUPERINTENDENT

AMERICAN CRYSTAL SUGAR COMPANY

MR. PORTERFIELD: Mr. Chairman, Conferees, ladies and gentlemen.

I don't have any formal statement.

CHAIRMAN STEIN: Do you want to identify yourself for the record?

MR. PORTERFIELD: J. L. Porterfield, American Crystal Sugar Company.

I don't have any formal report to make and what I am going to say is going to be partially repetitious of what has been stated by the State of Minnesota, but I would like to point out some of these things as a verification.

At our Moorhead and Crookston plants we have in the past year segregated a considerable amount of our water that is satisfactory to be returned directly to the stream. Sanitary sewage at the Crookston plant is now being received by the Crookston city system. Permission was granted this week by the City of Moorhead to accept our sanitary sewage. This year we stopped discharge to the stream at all of our plants by the end of the week of November 25th. Under date of November 27, 1967, we advised the State of Minnesota our present progress and plans.

I am hesitant to say that I don't believe we have quite as rosy a picture as Minnesota said we had. At the present time we are in the third year of a plant-sized survey test and this test is being made through the cooperation of all the major beet sugar producers and this test is being made at the Holly Sugar Company plant, Tracy, California. The results of this three-year study still do not give us the answer. Through the combined efforts of the major beet sugar companies plus a sizeable Federal grant we are now starting a plant-sized test at one of the Great Western Sugar Company plants at Longmont, Colorado. This system was just started this past month.

Satisfactory solution of all of our waste water problems is not easily accomplished.

A year ago we installed a system at our Chaska, Minnesota, plant, which is on the Minnesota River. This was a water clarifier system with a mud pond to receive the mud that had been brought in with the beets. This system cost us $251,155 and it hasn't solved all of our problems.

I might go back and say, too, that the sanitary sewer connection that we made to the Crookston installation last year cost us $8,764. The contemplated hooking up to the Moorhead system will probably cost us in the neighborhood of $15,000; it is a greater distance.

At the present time we lack the answers to a satisfactory solution of all of our waste water problems. We intend to continue to improve our conditions as we receive the means and receive the knowledge to do so, and I am hopeful that by 1969 we will be able to make a far better report than we are now.

Thank you.

CHAIRMAN STEIN: Thank you, Mr. Porterfield. Any comments or questions?

MR. BADALICH: Mr. Porterfield, if I may ask a question. It was our understanding that the project you completed on the Minnesota River at Chaska was going to more or less be a bearing or I should say indication what could be done in the Red River Basin on this closed loop system and it was my understanding that the results obtained were very appreciable and this was probably the intention of you people here in the Red River Basin.

MR. PORTERFIELD: This is true, that it was a considerable improvement. It is a costly improvement to maintain, to operate, and we are not yet satisfied with the results.

Now, we feel that in the Red River Valley, with the present size of our lagoons, probably our best approach is to change the present structure by damming of some of the areas of the lagoon and using that as a primary settling, and then at points where our normal discharge is now that we will take that water back to the plant for re-use and have a continual closed system.

In addition to that, we think that we can take a portion of this ponded water that has traveled through our lagoons and that if we put in such aerators, and I don't know what the answer to that is yet, but we think that we can control the BOD and probably continue to discharge water during our operating season that will meet the standards.

MR. BADALICH: I have no further questions.

CHAIRMAN STEIN: Any other questions?

Thank you very much, Mr. Porterfield.

You know, I think it is fair to say, at least from our point of view, I don't want to speak for the States, that your company has always been most cooperative and completely candid in what you are doing in pollution control and recognizing the problems. We do recognize the problems of your industry.

The Great Western is just proceeding altruistically, necessarily, in Colorado. I think they have had a little urging from us. But the problem that they have there is a lot more severe in a way, than you have here when you consider the amount of water you have in the Red River of the North and what those poor fellows have to contend with in the South Platte River that runs dry all the time. The requirement we have in Colorado or in the South Platte River, which is also an interstate case like this, is that they produce no more than a half a pound of BOD per ton of beets, and they think they can get it.

I know that there are going to be many problems with the sugar beet industry. For the people who aren't familiar with the industry, when we first went up to Torrington, where Holly has a plant, they were producing about 12 pounds of BOD per ton of beets. We finally got that down to eight and they said they couldn't go below eight. Then after much, much difficult negotiation we were approaching six. Now we are talking in terms of a half pound. I think if we had made this kind of reduction or progress in any other industry or even the municipal wastes, it would be noteworthy. In other words, the record in the sugar industry in terms of reductions we are talking about are second to none except maybe in terms of the brines from oil wells and pickling liquors, which go in deep wells and are eliminated completely.

But except for a treatment kind of operation, the kind of reductions we are getting or have gotten or began talking about in the sugar beet industry is absolutely phenomenal just in a period of a decade. I am not talking in terms of 12 tons of beets, but a half a pound or less. And we recognize that they have to use large volumes of water, we recognize that with the closed circuit situation coming in this is a brand-new process that has been worked almost on an experimental basis in a few plants, and we also recognize that in the use of this organic material over and over again there may be some very severe operating problems and possibly odor problems and maybe aeration is the answer.

But we hope to continue to work with you and your industry on this, and I can say over the years that we have been here that I know that your company has made a very diligent effort to take reasonable steps to abate pollution from the American Crystal Company.

Thank you very much.

MR. PORTERFIELD: Thank you.

I would like to point out one thing about what you said in comparing the Red River Valley flow to what there is in Colorado. We have experienced low flow in this area too.

CHAIRMAN STEIN: Yes, I know. But not like they have. They go dry.

MR. PORTERFIELD: We have been down to thirty second-feet at Moorhead.

MR. GADLER: Mr. Porterfield, I want to publicly commend you for your company's work in the attempt to abate, control and eliminate pollution.

MR. PORTERFIELD: Thank you, sir.

(Off the record.)

MR. BADALICH: That is all the State of Minnesota has to present.

CHAIRMAN STEIN: We will call on Mr. Van Heuvelen.

NORTH DAKOTA PRESENTATION

W. VAN HEUVELEN

EXECUTIVE OFFICER AND CHIEF SANITARY ENGINEER
NORTH DAKOTA STATE DEPARTMENT OF HEALTH

MR. VAN HEUVELEN: Thank you, Mr. Stein, Mr. Fisk and Minnesota Conferees.

We have had a lot of philosophies and observations today. Maybe I would like to make a couple too.

W. VAN HEUVELEN

Number one, I am glad to have the chance to hear from local government and industries, because in my book they are the real people that provide pollution prevention. Unless they build plants, unless they provide this material, we can have surveys and studies and conferences until we are blue in the face and we are not going to get anything done unless local government accepts their responsibility. And they do have very deep and sincere problems.

Number two, I think today we are in a state like we are in so many other things in our modern day life, we are talking about and hearing from people who have certain problems in the field of pollution, but we are forgetting all of those people who are not here. For example, in the North Dakota Red River Basin we have 75 municipal waste systems and 75 municipal waste discharges. There are five communities out of these 75 that are mentioned in these enforcement action recommendations. In other words, 70 are home without any comments being sought. Among the five that are here, many of the comments and the enforcement actions are, in my book, somewhat minor.

Just with those objections, we would like to present a very brief State report and then we would like to hear from those communities that are present and I think one industry is present from North Dakota and these will be very brief.

Mr. Norman Peterson will present our State report.

NORMAN L. PETERSON, DIRECTOR
DIVISION OF WATER SUPPLY AND POLLUTION CONTROL
NORTH DAKOTA STATE HEALTH DEPARTMENT

MR. PETERSON: Thank you, Van, and Mr. Stein.

This report covers a period of approximately 26½ months. From September 14, 1965, the date of the "Conference meeting in the matter of Pollution of the Interstate Waters of the Red River of the North" to December 1, 1967.

The purpose of this report is to note the progress made, not only in construction of facilities to adequately treat wastes, but also other actions which are directly related to the control of water pollution and have a definite bearing on the control of pollution of the Red River.

NORMAN L. PETERSON

The North Dakota State Legislature meets once every two years. The North Dakota State Department of Health drew up and presented to the 1967 Session of the Legislature a comprehensive water pollution control bill. This proposed legislation passed and went into effect July 1, 1967. The new law set up a State Water Pollution Control Board consisting of representatives of four State agencies and four citizen members appointed by the Governor. The Chief Sanitary Engineer of the State Department of Health serves as Executive Secretary to the Board. This is a new Board. The Board has held two meetings. A third meeting is scheduled for January 19, 1968.

The new legislation, in general, empowers the Board to take the necessary action against pollution of any waters in the State, to adopt rules and regulations relative to pollution control, and to adopt water quality standards. The law also provides penalties for those in violation to the provisions of the law and the rules and regulations that are adopted.

In 1966, the North Dakota State Department of Health drew up tentative water quality standards for surface waters in the State. After a series of public hearings, these standards were finalized and adopted by the North Dakota State Health Council on April 21, 1967, and by the North Dakota State Water Commission on May 16, 1967. They were then forwarded to Federal Water Pollution Control Administration of the Department of Interior for their review and approval. Approval was given by Secretary Udall of the Department of Interior on August 7, 1967. However, approval of the North Dakota standards for the Red River Basin was withheld until the Department of Interior could determine compatability between the standards drawn up by both Minnesota and North Dakota for this river. Representatives from North Dakota-Minnesota and the Federal Water Pollution Control Administration met in Minneapolis last month and worked out the details. It is our understanding that with one or two minor changes, the standards of water quality for the Red River that have been adopted by North Dakota will be considered approvable by the Federal Water Pollution Control Administration and that office will recommend to Secretary Udall that they be approved.

The State Water Pollution Control

Board adopted the Water Quality Standards for the State at their first official meeting on September 7, 1967. The minor changes to the standards for the Red River Basin will be presented to them at their next meeting for their consideration and possible adoption.

The North Dakota Fiscal 1968 Program Plan for water pollution control was completed in early July, signed by the Governor on July 11 and forwarded to the Federal Water Pollution Control Administration, Department of Interior, for approval. In a letter addressed to the Governor, dated October 6, 1967, Secretary of the Interior Udall approved the North Dakota Program Plan.

The plan outlines the steps the State Water Pollution Control Agency plans to take in its program to control water pollution. It covers intended activities in such areas as waste treatment plant operator training, inspections of waste treatment facilities, monitoring streams for determinations of quality, plan review and approval to determine compliance of waste treatment requirements, and other activities pertinent to water pollution control.

Several cities and industries in North

Dakota, as a result of the summary and recommendations of the 1965 Conference, were noted as contributing to pollution of waters in the Red River Basin. These cities and industries have been advised of this progress evaluation meeting and have been asked to be present to report on the status of their activities toward solving their pollution problems. For this reason, this report will only briefly mention the activities to the extent our Department is aware of them at this time. No doubt each city or industry present will present a more extensive report.

The City of Fairmount, through their attorney, has informed our Department that they are studying possible treatment methods and possible locations for a facility.

The City of Fargo is installing equipment to chlorinate its waste discharges.

The City of Mayville presently has a new secondary treatment plant under construction.

The industries in the industrial complex adjacent to the north side of Grand Forks and the city have reached agreement by which the city will accept the industrial wastes and treat them in the city's facility. It is understood most of the construction necessary to bring these wastes into the city system has been completed.

The City of Walhalla has submitted an engineering preliminary report and proposed plan for a treatment facility. They have also applied for a Federal Water Pollution Control Grant. The proposed plan and grant application have been approved by both our Department and the Federal Water Pollution Control Administration.

The State Department of Health presented tentative rules and regulations for the control of wastes from livestock feedlots to the State Water Pollution Control Board at their last meeting. The Board has indicated that after the necessary public hearings, they will probably adopt rules and regulations of this nature.

Mr. Chairman, this concludes the report from the State Health Department and our new Water Pollution Control Board.

CHAIRMAN STEIN: Thank you very much.

This is a very excellent report. I think it is fair to say, just prima facie, that it looks like everyone is in compliance. The only one where there may be a question of doubt, and this may be clarified, is the City of Fairmount. It is not sure whether they are going to be completed during that construction season of 1968.

But it looks like the others are in compliance, just on the face of the report. Maybe we can get this clear.

MR. VAN HEUVELEN: Mr. Chairman, I would like to call on each one of these cities and some of these industries, if I may.

Is there someone here from Fairmount?

STATEMENT FOR
CITY OF FAIRMOUNT, NORTH DAKOTA

MR. VAN HEUVELEN: I do have a letter. We would like to file this letter. However, I think this letter perhaps does not answer our real question about Fairmount.

It is addressed to North Dakota State Department of Health. It says:

"Your letter dated September 22, 1967, and addressed to the Honorable J. M. Schmitt, Mayor, City of Fairmount, Fairmount, North Dakota, has been turned over to me for reply."

I should have mentioned this is from

CITY OF FAIRMOUNT

Mr. Paul A. Muehler, City Attorney for the City of Fairmount.

"Mayor Schmitt has spent the last week or 10 days in the hospital, and was therefore unable to answer prior to this time.

"The Mayor informs me that they have been studying their water pollution problem for some time, and have looked into different types of disposal units and also possible locations for these units. Also, in this connection, the engineers of the Richland County Planning Commission were to study their problem and make recommendations, and they have been waiting for the recommendations to be made by the said engineers.

"Also, they have written to the American Standard Company about 'Aerobic Digesters' and so far have not received this information either.

"At this time he is unable to give you any definite time schedule of action as to when construction will be completed and a treatment facility put into operation. However, as soon as something definite has been decided, such information will be forwarded to you. I realize this is not very much information for the Board to consider at their

October 20 meeting"--

This was written to us sometime prior to this time.

--"but at the present time this is as much as we have to give. We hope that this will be sufficient until we are able to arrive at something definite."

This was sent to our Water Pollution Control Board in answer to a request for information. So I think Fairmount is somewhat of a question mark, Mr. Chairman, at this time.

Is there someone from Fargo, North Dakota, who wishes to make a comment?

Mr. Ruby.

KENNETH RUBY, SUPERINTENDENT
WATER AND SEWAGE UTILITIES
FARGO, NORTH DAKOTA

MR. RUBY: My name is Kenneth Ruby. I am Superintendent of Water and Sewage Utilities here in Fargo.

I hadn't planned on making a formal statement, but I will reiterate what Mr. Van Heuvelen said or Mr. Peterson, we do have a chlorinator under contract, we expect to receive it in approximately six weeks, so that by the April 1 deadline the effluent from our sewage plant will meet the requirements.

CHAIRMAN STEIN: Thank you, Mr. Ruby.

Again I would like to say that no plant is better than its operation, and I think it is fairly well known that Mr. Ruby has one of the best operating plants in the country. This is what it takes to really run a plant to match up to its designed capacity.

MR. VAN HEUVELEN: Thank you, Mr. Chairman.

Is there anyone here from Mayville? I think that was clarified, though. This plant is under construction, it is the approved plant and will meet requirements when it is completed.

The City of Grand Forks I know has a statement. Mr. Forsman, are you going to read this?

A. E. FORSMAN, SUPERINTENDENT
WATER AND SEWAGE DEPARTMENT
GRAND FORKS, NORTH DAKOTA

MR. FORSMAN: I am Mr. Forsman, the Superintendent of Water and Sewage Department, Grand

Forks, North Dakota. I have a letter here from the Mayor of Grand Forks to Mr. W. Van Heuvelen in Bismarck.

"December 4, 1967

"Re: Your letter of October 30, 1967 - Pollution of Interstate Waters of Red River of North and Red Lake River.

"Dear Mr. Van Heuvelen:

"Our Water and Sewage Superintendent, Mr. Forsman, and Mr. Schoenborn, our City Engineer, will officially represent the City of Grand Forks at the hearing in Fargo, December 6th at 10:00 a.m.

"Briefly we want to list the following steps that the City of Grand Forks has or plans to take to remedy this situation:

"1. Has remodeled two sewage lift stations to enable them to serve the North End Industrial area of Grand Forks.

"2. Has connected an additional pump in the Master Lift Station to increase standby capacity.

"3. Has constructed the sewer mains and laterals necessary to service the North End industrial area of Grand Forks.

"4. Has enacted an Industrial Wastes

Ordinance which provides:

"a. Additional control of industrial wastes discharges into the City sewer system or into any watercourse within or entering the City.

"b. Equitable rates based on sewage strength.

"5. Has made preliminary studies and has earmarked some funds to provide for expansion of sewage treatment facilities.

"6. Has made application to the Federal Water Pollution Administration for a Research and Development grant to aid in the construction and operation of a controlled facility for treatment of potato processing and municipal wastes by anaerobic fermentation, aerobic stabilization process under Title 11, Section 6(a) of the Federal Water Pollution Control Act as amended by the Clean Water Restoration Act of 1966.

"7. Is in the process of notifying all water customers in newly annexed areas including North End industrial area, not presently connected to the sewer system, that they must connect to the City sewer system.

"We are real proud of the progress we

have made in regard to this item. At the present time the water coming to Grand Forks from upstream is so bad that we have been unsuccessful in removing all of the objectionable tastes and odors. We are tremendously concerned about what is being done upstream from Grand Forks both on the Red River and Red Lake River to control the pollution there. We understand that there may be two standards of control and enforcement - one for industry and one for cities and that because of this, industry upstream is dumping way too much raw sewage into the rivers. We suggest that you give this item primary consideration.

"The City of Grand Forks is ready to cooperate in every way possible so that good water might be had for the people downstream from Grand Forks. Please let us know if you have further suggestions as to what Grand Forks should do.

"Yours truly, (signed) H. R. Magnuson, Mayor."

CHAIRMAN STEIN: Thank you, sir. Are there any comments or questions?

One, are you going to be in compliance by 1968?

MR. FORSMAN: We trust that we will

be, yes.

MR. VAN HEUVELEN: Possibly not the April 1st.

CHAIRMAN STEIN: Not the April?

MR. FORSMAN: No, but by the time the potato wastes will be coming in in the fall, we should be.

MR. VAN HEUVELEN: Actually, Mr. Chairman, if you look at this April 1, 1968, date, it basically means, you might say, November 1 or December 1, 1967, in this part of the country.

CHAIRMAN STEIN: Yes. No, I am talking about the same way as we talked in Minnesota, if we are going to be realistic and equitable and see how this is going to be. During the construction season in 1968.

How do your chances look on that grant, the potato grant?

MR. FORSMAN: I think they look pretty good. I mean both the State and the Federal seem to think they are good.

CHAIRMAN STEIN: Oh, it hasn't come in yet?

MR. VAN HEUVELEN: It is on the way.

CHAIRMAN STEIN: On the way. O. K.

Again we will do what we can on those potato wastes. I think we might help.

Let me ask Van and you, what is the problem upstream that they are talking about? Are they identifiable with a pollutant that we are supposed to be controlling?

MR. VAN HEUVELEN: I don't know. Perhaps I will pass the question back to Mr. Forsman. Are these continual or are they seasonal?

MR. FORSMAN: This fall it has been continual, it has been up and down. Mr. Fisk was advised of the fact when we had the zero oxygen content in the river, and, of course, this improved to some extent and then we were slugged with this odor and taste problem. Of course we found that both rivers were approximately as bad.

MR. VAN HEUVELEN: What time of the season was this? Was it September, October and November?

MR. FORSMAN: This was in--

MR. VAN HEUVELEN: October and November?

MR. FORSMAN: November was the period

when we had the greatest amount of odor. And right at the present time we have discontinued using the water on the Red River and are now just using from the Red Lake.

MR. FISK: Generally these taste and odor problems are associated during the sugar beet campaign, is that what you are saying?

MR. FORSMAN: It has been since the sugar beet campaign started, yes.

MR. FISK: Does that discontinue, then, when the sugar beet campaign closes, say early January or something like that, or even the first of December?

MR. FORSMAN: In the Red River it is continued throughout the winter, the low oxygen content is continued throughout the winter during the time when we have the ice coverage. On the Red Lake River it has been pretty good during the winter season on.

MR. FISK: Does your taste and odor problem, though, diminish after the sugar mills cease discharging, say December 1?

MR. FORSMAN: I would say yes, to some extent. Of course, now, they say they have just discontinued the discharge at East Grand Forks on the 25th of November. Now, in a week or so we should be able to tell whether there is any difference there.

MR. FISK: I understand all the sugar mills have ceased discharging around December 1. Isn't this right?

MR. FORSMAN: That is what Mr. Porterfield mentioned.

CHAIRMAN STEIN: The campaign is over?

MR. FISK: No, they now have to store everything up until spring.

MR. VAN HEUVELEN: From there on they store.

CHAIRMAN STEIN: Will the program we have outlined here--we talked about this ice cover business and no discharging under ice cover--will our program meet the water quality requirements at the water intake there or are we going to have a problem?

Here, let me phrase this question, because I think this is an important one, that if we have requirements, industrial waste requirements, even if they are complied with, that is going to keep on giving Grand Forks a taste and odor problem every year in the interim between the time this sugar beet campaign opens and the time there is an ice cover on the river and they have to store. Maybe we have to look into that a little more carefully, because I don't know that we have eliminated the adverse effects of pollution if this just is going to continue to be a recurring event. I don't know, I just raise that question.

MR. BADALICH: I think there, Mr. Stein, that we certainly are going to have our liaison developed between the nothern part of the Red River and the southern part to know when the ice flow actually goes out, but taking into account the stream flow also. But if they have to discharge during the winter months, the effluent is going to have to meet the standard of 25 milligrams per liter for 5-day BOD, if it is essential that they have to discharge during the winter months.

CHAIRMAN STEIN: Right. But here let me--pardon me, go ahead.

MR. VAN HEUVELEN: In other words, it would meet 25 parts per million effluent standards prior to November or December 1, say?

MR. BADALICH: Yes, it would be my understanding of it.

MR. VAN HEUVELEN: I think that would do much to alleviate the problem.

CHAIRMAN STEIN: That may be. And I think you would find that we may be on our way toward licking the problem with the program that is now involved in the sugar beet wastes. I do think, though, that this is something we are vitally interested in. You know, pollution control is not just putting up plants. The question is can you drink the water when you had a taste and odor problem before, can you have fish and wildlife when you didn't have it before, or can you swim in it safely when you couldn't do it before.

The thing that pollution control is all about is to provide a safe and potable water supply for communities using the river as a source of water supply. I don't think there is anything more important that that. This is something that we are going to have to keep our eye on, because unless we clear that up you can't say we have controlled the pollution in the river, I don't think.

MR. FORSMAN: I think there is one point, too, to be added to that, and that is that this situation should prevail in the spring of the year too. We have a runoff in the spring that allows the discharge of wastes. Now, our runoff may be of such a small amount that it shouldn't be classified as a runoff as far as putting the pollutants into it, because there is not enough dilution.

This, I think, is one of the situations we have this fall, is that we have so little water in the river and so much sugar beet waste and other wastes going into the water that we can only expect to get this up at Grand Forks.

CHAIRMAN STEIN: I understand that.

After we have provided all reasonable treatment, the answer may be that we need augmented low flow. We will have to look at this. But I don't think we have managed the river if you have a legitimate water intake and you have a taste and odor problem in our city water supply; as far as I am concerned we still have a pollution problem and this is a problem we have to get at one way or the other.

If we have taken all approaches to treating wastes at the source and eliminating them, this is fine. I am not sure that we also have the taste and odor problem solved on what is put here. You know, you have a tentative causal relation that it may have to do with sugar beet wastes; it may or may not. These are often very tricky problems. Unless we get the evidence lined up and you have your causal connection, you can fool around with theoretical causes and if it is not the right cause you are still going to have the same problem, even though you spend a lot of money in eliminating the cause.

Thank you.

MR. PORTERFIELD: Mr. Stein.

CHAIRMAN STEIN: Yes.

MR. PORTERFIELD: I would like to make a reply and probably pose a question or two.

I want you and the Conferees to be well aware that we were not discharging water at the time of the low dissolved oxygen. I don't want that horse collar around our necks.

Now, I also would like to point out that at all of our plants we are monitoring these streams daily and we pretty well know what the condition of the river is.

I would like to point out that we stopped discharge at a period this year at our East Grand Forks plant, and I think a review of the results would be worthwhile.

One other point. I am not sure whether Mr. Fisk stated this a moment ago or not, but did you say that no discharge could be made under ice cover if the BOD was 25 or below?

MR. FISK: No discharge under ice cover period.

MR. PORTERFIELD: I never did understand that.

MR. FISK: This is Minnesota's standards, I believe, and North Dakota's also.

CHAIRMAN STEIN: Yes.

MR. PORTERFIELD: I thought any time when 25 BOD or below that discharge can be made.

CHAIRMAN STEIN: No. I think Mr. Fisk is right. Do you people want to check this if it is wrong? I understood this and let the technical people correct me if I am wrong on this.

As I understand it, no discharge of sugar beet wastes are to be made at all during ice cover is the agreement we have between the two States and the Federal government. Is that correct?

MR. PORTERFIELD: I am not speaking of sugar beet wastes. I am speaking of water below 25 BOD.

MR. FISK: I was just speaking of sugar beet wastes.

CHAIRMAN STEIN: Sugar beet wastes.

MR. PORTERFIELD: Well, let me pose another question, then.

Do you consider all water we discharge as sugar beet waste?

MR. FISK: Well, the water you have been discharging has all been coming out of one spot, from the lagoon, hasn't it? This is the point,

MR. PORTERFIELD: No, this is not so.

MR. BADALICH: Mr. Stein.

CHAIRMAN STEIN: Yes?

MR. BADALICH: Talking to my technical people now, they say that it is permissible to discharge under ice cover providing the effluent does not exceed 25 milligrams per liter, but we would prefer no discharge during that particular time of ice cover.

CHAIRMAN STEIN: Your view on that is about the same?

MR. VAN HEUVELEN: Well, certainly the effluent standard is 25 parts per milligram for discharge of any wastes. There is a proposed rewrite on the discharge of agriculture processing wastes under ice. I am just looking for it now.

CHAIRMAN STEIN: I have a summary of the first Conference that presumably we all agreed to. You know, generally I am plagued with one of these nasty memories. Now, if we are going to change this, I think we had better consider this and change it.

But point 8 says:

"No industry in the Conference area is to discharge process wastes under ice cover."

And that is pretty clear to me. This was unanimously agreed on after careful investigation by the technical staffs of the Federal government, Minnesota and North Dakota, and if there is to be a modification of that, I think this is one of the things we might entertain and see what the technical staff can work out. I think this is a very significant thing. I am not sure that we can do it at this table.

MR. BADALICH: I think the point there, Mr. Stein, probably our standards do indicate that we could discharge, but maybe we are a little in conflict with the Conferees' recommendation.

CHAIRMAN STEIN: Right.

MR. BADALICH: On this particular river basin.

CHAIRMAN STEIN: Yes. Now, this--let's go off the record.

(Off the record.)

CHAIRMAN STEIN: May we go back on the record, please.

Yes, sir.

MR. PORTERFIELD: One more question. Maybe the discontinuation is what you classify as processed waste. What I am trying to say is that condenser water and cooling water testing 25 or below is not processed waste.

CHAIRMAN STEIN: That may be. Now,

if this is so, I think we should clarify this.

MR. PORTERFIELD: That is what I want in the record.

CHAIRMAN STEIN: Yes. That is why I say, I am not sure we are very far apart on this. I think on its face people at least have an area that may be subject to varying interpretations, and I think the industry should know and the State and Federal authorities should know precisely what the ground rules are.

MR. PORTERFIELD: We have to know.

CHAIRMAN STEIN: That is right.

MR. PORTERFIELD: Or else our thinking is completely haywire.

CHAIRMAN STEIN: Right. Because some of the thinking, I think, reflected by our technical staff has been that no wastes from a sugar beet mill would be discharged under ice cover, at least this was my understanding, and this would be stored.

Now, I am not saying that this is what should be done. Obviously Minnesota had a little different view on this. This is a technical matter that I hope can be resolved. It is vitally important, certainly, to the operation of your industry, and we will get to work on that.

Mr. Van Heuvelen.

MR. VAN HEUVELEN: I would think that if sugar beet wastes could meet the 25 milligrams per liter effluent standards, they certainly should be permitted to discharge. I doubt whether they do meet that at the present time, either in the fall or in the spring. But I think if they do, then they should--

MR. PORTERFIELD: We do meet that on our condenser water.

MR. VAN HEUVELEN: On your condenser water? O. K.

MR. PORTERFIELD: We are separating the water and by aeration we are hoping we can do it in the process water.

CHAIRMAN STEIN: Again it sounds reasonable. I don't want to make a judgment on this until our Federal technical people have a chance to go over it, but you are certainly entitled to the clarification.

Mr. Van Heuvelen.

MR. VAN HEUVELEN: Shall I go on?

CHAIRMAN STEIN: Yes.

MR. VAN HEUVELEN: I think at this time since we are in the Grand Forks area, we should hear from the Pillsbury Company. Did you wish to make a statement?

MR. JONES, Pillsbury Company.

RAYMOND D. JONES

MANAGER, DRIED PRODUCTS DIVISION

THE PILLSBURY COMPANY

MR. JONES: I am Raymond D. Jones of the Pillsbury Company, Minneapolis, Minnesota.

The Pillsbury Company's potato processing plant in Grand Forks, North Dakota, has primary waste treatment facilities which are inadequate. The consulting engineering firm of McCombs-Knutson Associates has completed analysis of the processing wastes, determined alternatives, prepared their engineering report, and are under a contract to design the activated sludge process plant alternative chosen from their report. While I do not wish to enter this report into the record, I will be most pleased to provide the State and Federal offices with a copy for their consideration. The City of Grand Forks last Friday, Bob, were provided with a copy for their design purposes. The scope of the above work is extensive and major construction will be involved.

Our intent is to design on-site treatment which will permit waste strength limitations acceptable by the City of Grand Forks, permitting final treatment by the City system. We are working closely with the City and State toward this end.

Construction of the waste treatment facilities should be completed in time for shakedown runs at next season's start-up, on or about October 1, 1968.

This will, of course, require an extension of our waste handling methods beyond April 1, 1968, and, therefore, we do hereby request an extension of time of one year to April 1, 1969. The extended schedule would provide the added benefit of test flows to the City's system to permit observation, analysis and modifications, if necessary.

CHAIRMAN STEIN: Right. Under the agreement we have with the State, the one request that has to be acted on, of course, is North

Dakota, and our agreement is that the North Dakota State Department of Health, as far as the Federal requirement is concerned, may grant to specific industries an extension of the deadline where extensive construction is necessary. I think it is very clear that your statement is well within the scope of our agreement with the State and your request would have to be dealt with by the State.

As far as I can see, it is within the scope of the Conference agreement.

Thank you very much.

CHAIRMAN STEIN: Mr. Van Heuvelen.

MR. VAN HEUVELEN: Thank you, Mr. Jones.

That is the last of the North Dakota industries.

Is there someone here from Walhalla?

Another industry. Would you care to say something?

J. W. LINDGREN, MANAGER
ROGERS BROTHERS COMPANY
GRAND FORKS, NORTH DAKOTA

MR. LINDGREN: No. We are in cahoots with the City of Grand Forks.

MR. VAN HEUVELEN: You are going to go into the City of Grand Forks' system and this will be accomplished during the next construction season, I believe, am I correct on that?

MR. LINDGREN: It will be April 1 or March 20.

We had a setup a year or two years ago, a clarifier, and are all set with the City of Grand Forks to go into the City of Grand Forks' sewer system.

CHAIRMAN STEIN: During construction season in 1968?

MR. LINDGREN: Well, put it that way, give us a little more time.

CHAIRMAN STEIN: Yes. All right.

MR. VAN HEUVELEN: Is there anyone else from Grand Forks here?

O. K., someone from Walhalla.

MR. FISK: What kind of waste do they have at Rogers?

CHAIRMAN STEIN: What kind of waste do you have?

MR. FISK: Is this a potato waste or what is it?

MR. LINDGREN: Yes, potato waste.

MR. VAN HEUVELEN: Is your question answered?

CHAIRMAN STEIN: Yes, yes.

MR. VAN HEUVELEN: City of Walhalla?

I believe Mr. Peterson stated the City of Walhalla had submitted a preliminary engineering report and proposed plan for the treatment. They have a construction grant and we do suspect that this will be constructed during the 1968 construction season.

Mr. Chairman, I believe this completes the five North Dakota communities.

CHAIRMAN STEIN: Right.

Are there any other comments or questions from the Conferees?

MR. FISK: I have got one question.

In the Conference report, you have Abercrombie shown in here. I understand you are going to send something to have this--

MR. VAN HEUVELEN: Yes, I think this possibly was an error. We list Abercrombie as a City with primary treatment. They have individual septic tanks; they discharge to a common disposal field, which discharges to a ditch many miles from the Red River, and it actually was an error that they were listed as a waste discharge.

MR. FISK: You are going to send in a letter to that effect?

MR. VAN HEUVELEN: We will send a letter to that effect.

MR. FISK: One other question regards the proposed sugar mills. Perhaps this hit you cold in some respects. Have you had any work with these companies and what is going to be done with their wastes?

MR. VAN HEUVELEN: We had a number of contacts with them and with their engineering firms. No, I cannot answer the question as to what exactly their plan is. Original discussions indicated lagoon retention, perhaps field dispersion and field irrigation with some of the wastes.

MR. FISK: Would this be both at the one north of here and the one down at the Wahpeton-Breckenridge area?

MR. VAN HEUVELEN: No information on that one.

MR. FISK: You don't know whether

it is going to be in Minnesota or North Dakota yet?

MR. VAN HEUVELEN: That hasn't been decided. We trust in North Dakota.

CHAIRMAN STEIN: Any other questions?

MR. BADALICH: Mr. Stein, I have one observation to make in regard to your earlier remarks on the sugar waste processing probably discharging--what is it?--one-half pound per day BOD per ton of sugar beets, and I believe you are familiar with the ultimate BOD loading in the portion of the Red River at Fargo-Moorhead, where we have set a limitation of 2,800 pounds of 5-day BOD.

CHAIRMAN STEIN: Yes.

MR. BADALICH: Well, it is my understanding also that the sugar beet industry is processing as much as 4,000 tons per day. So if you will multiply that by your half a pound, you will see there is not very much left for the Cities of Moorhead and Fargo--

CHAIRMAN STEIN: Right.

MR. BADALICH: --to discharge, so you can see what the complexity of this problem will be in the future or even at the present date.

MR. VAN HEUVELEN: I think this points out the fundamental importance here in Garrison Diversion in the ultimate plans of the Red River, and also perhaps the requirement for dilution water, and that the ultimate diversion will bring to this area.

CHAIRMAN STEIN: I would agree with you there. And I do think we have a very good program on the way.

Now, obviously we are not going to get any successful attempt to get diversion for water quality unless we can make a demonstration that we have done our best to reduce wastes at the source.

MR. BADALICH: Right.

CHAIRMAN STEIN: I think as a result of this progress meeting we have a tremendous leg up on that, because I can see a real respectable statement being made. But it is pretty clear, with the competition that you have for water, that we just can't even get into the batter's box unless we come up with a record that I think we are going to have in the Red River on treatment.

Are there any other comments from

the Conferees?

Does anyone else want to make a statement?

ROBERT NORTHRUP
DEPARTMENT OF ARMY, ST. PAUL DISTRICT
CORPS OF ENGINEERS

MR. NORTHRUP: Yes, Mr. Chairman. I am Robert Northrup, Corps of Engineers, St. Paul District Corps of Engineers. I would like to comment regarding the Garrison Diversion flows.

As you know, the Water Pollution Control Act Amendments of 1961, Public Law 87-88, provides that:

"In the survey or planning of any reservoir by the Corps of Engineers****or other Federal Agency, consideration shall be given to inclusion of storage for regulation of streamflow for the purpose of water quality control,***."

Let me add, this legislation requires that "such storage and water releases shall not be provided as a substitute for adequate treatment or other methods of controlling waste at the source."

Now, in regard to the Garrison Diversion unit, we have studies underway, surveys and investigations in the **Sheyenne** River to meet the water needs there. We have got flood control problem, water quality control problem from irrigation return flows.

The Public Health Service made a study and recommended a 60,000 acre-foot of storage allotment for water quality control. We are including this in our plans. However, we understand that the Bureau of Reclamation is considering the overhead irrigation sprinkler system. If they do, then the irrigation return flows would be decreased substantially and we would have to modify our water quality allotment.

But at this time we are planning 60,000 acre-feet for water quality control.

CHAIRMAN STEIN: Well, this is about the script for every course we get. Thank you very much.

On dealing with this. This is not the first time we have been adjusting projects between the Bureau and the Corps. That is the story of our life. But I am sure something equitable will come out of this and will be worked out.

Are there any other comments or

questions?

If not, I think we have made tremendous progress and we can summarize this very, very rapidly.

SUMMARY

Both Minnesota and North Dakota are to be commended on very active pollution control programs in the Red River of the North. I think the industries and the municipalities are also to be highly commended, because as Mr. Van Heuvelen pointed out, this is where pollution counts. You can always get smart characters like us, whether it is from the Federal government or the State, going out and telling you what to do, but the people who actually have to do it are the cities and the industries and they have to pay the money to do it.

I think the cooperation has been tremendous. It looks easy now, but the allocation of waste loadings and working out a program in this river involved some of the most sophisticated work done in water quality management up to this point. In talking about releasing water from impoundments for water quality, possibly we will have to go even farther in the future.

I think we can say that in almost all

cases the cities and the industries are on schedule, and this is to construe the schedule, in light of normal developments, to have the work completed during the 1968 construction season. There is just one city and no industries where we do not have complete information, and I think for the purposes of the record we should attempt, if we can, to get a statement on the City of Fairmount. Now, this should be given to the other Conferees, and if North Dakota wishes, because this is up to North Dakota, if you can get that in to us in two weeks, we will be glad to include it in the record, the transcript record, so people reading the record would not find just Fairmount being out of the record.

MR. VAN HEUVELEN: They were invited to attend this meeting and make a statement by a letter to their Mayor and to their City Attorney, so I don't know whether we will--we will see if we can get something.

CHAIRMAN STEIN: Well, if you can't, we will have to leave it as it is.

I also think that we probably have a job to do that we are going to have to do anyway in the getting of standards and that is to clarify the statement "No industry in the Conference area is to discharge process wastes under ice cover," and I would suggest that we appoint members of a technical staff from the Federal government and the two States to get together and hopefully get an agreement on that. I would hope that we could get an agreement on that within a week, because I think it is just going to have to be cranked into the standard processes or else we may run out, but at least not more than a month. And I should think that we could get that situation clarified for the record.

In addition to that, we had several recommendations made by Mr. Badalich. The first one was:

"The possible future pollution effects of the proposed Garrison Diversion Project with respect to salinity in the Red River of the North should be studied more intensively and plans made for possible alleviation of such effects****."

I would think that this would be the kind of study which would require considerable funding and staff and probably if you look at it realistically would be within the resources of the Federal government or that interstate commission that was formed. If it is appropriate to the Conferees, I think we can make this as a recommendation and get this up to Secretary Udall, and I will make the recommendation that he may want to consider the interstate agency, the basin agency, as the appropriate agency for this if after talking to them they want me to do that, but to give him the flexibility of determining how he wants to do that, to work.

The next one is:

"The potentialities for greater augmentation of low flows in the Red River by construction of additional reservoirs or diversions should be given serious consideration after the municipal sewage treatment works are operating up to or over 85 percent BOD reduction."

I think that it is fair to say that we have a program under way to achieve that now, don't we?

MR. BADALICH: Yes, we do.

CHAIRMAN STEIN: We do. We make the recommendation, and this might be meaningful to the Secretary, since this program is under way, that we believe that potentialities for greater augmentation of low flows is necessary if we are going to control the salinity problem and make the water available for agricultural uses, including agricultural industries, to its full potential in the area, and that in consideration of Federal impoundments now going into effect that serious consideration should be given to the potentialities for greater augmentation of flows. If you wish, it may be well to tag the proposed--

Is that Garrison, the proposal? What is the name of the project?

MR. NORTHRUP: We have got several alternative studies under way on the **Sheyenne** River. All involve multi-purpose reservoirs.

CHAIRMAN STEIN: All right, we will stay away from the name.

MR. ALEXANDER: Are you talking about the irrigation project?

CHAIRMAN STEIN: No, I wanted to know if that--this is precisely what I am trying to find out. If there were one specific project, we could call it to the attention of the Secretary and that would help, that would be fine, but I suspect there isn't and we had better stay away from it.

O. K.

MR. GRAY: I might mention that these problems that you are discussing are appendix items in the planning of the Souris-Red-Rainy River Basins' Commission, and that the various Federal agencies and the States involved are working portions of this Commission and these items are definitely being considered and planning is evolving.

CHAIRMAN STEIN: Right. O. K. But, you see, if we can make the point, I think the issue we want to get here, if I understand the consensus of the Conferees, is to at least indicate that from a water quality management operation we are going to need augmented low flows and extra water in that river. Now, we do know within or without our department there are going to be competing demands for that water, and I think a recommendation by these people for it to be used for quality control will have an effect. The details obviously will have to be worked out through your Commission.

Other than that, do we have any other points?

MR. BADALICH: I have one more, Mr. Stein, that is regarding the sewer separation. We suggested the possibility of extending, if justifiable, to a 10-year period instead of the fixed date, I believe that the Conference recommendations indicated before, of sometime in 1971. We feel that there is justification that this should be extended to a longer period of time.

CHAIRMAN STEIN: How do you feel about that?

MR. VAN HEUVELEN: I think I would go along with that. We perhaps don't have too many communities that have this as a major problem. One or two, though, that it is going to put quite a burden on to separate all the sewers by that time.

CHAIRMAN STEIN: I think we can make that recommendation, I think with this proviso, that we have periodic reporting on the progress being made with the notion that we are making reasonable progress with the program.

MR. BADALICH: We are agreeable with that.

CHAIRMAN STEIN: With that I think that would be entirely agreeable.

Are we all set, then?

MR. BADALICH: Yes, sir.

CHAIRMAN STEIN: I want to thank you all for coming and staying with us so long. I do think we have made considerable progress in this. This has the advantage of getting the whole picture together.

To my mind this may be one of the most productive progress meetings we have had. I think all hands are in agreement, State, Federal, interstate people, cities and industry. I think we are right in the midst of a program to clean up pollution in one of our major rivers, and I think we can do it without some of the dramatics and the contests you might have in a situation of this kind where we are all so much in agreement.

The Washington Redskins are a little tired of dramatics, at least the coach is. You know, we have tied several games and the last seven games we haven't done too good a job on winning, but won or lost by less than ten points or less than a touchdown. Last week I guess the Giants were tied by the Redskins 35 to 35, and Otto Graham, the coach, said, "I don't want any more of these exciting games."

Summary - Mr. Stein

That is the way I feel about these Conferences. At times you have real exciting ones and controversy, you have real differences and you are not getting things moving. We have had these in the past here.

I would say, and I have been involved in these with well over 1,200 cities and over 1,200 industries or more, that we have had since our last meeting as much indication of progress in a complicated situation such as we have here as I have seen anywhere in the country. I think this river is on its way to being cleaned up, and by that I mean we are treating wastes at the source. I think by virtue of doing this you may be one of the first rivers where we can have genuine water quality control management of discharges as well as treatment, and I think this is going to show the way for the rest of the country.

I would like to thank you all again for participating and not the least the cooperation of both States. This shows you that despite our philosophical differences we can have a working Federal-State program even though we may get abrasive at some times.

Thank you very much. We stand adjourned.

(The following letters were submitted for the record after the adjournment of the above meeting:)

NORTH DAKOTA
STATE DEPARTMENT OF HEALTH
BISMARCK 58501

Environmental Health and Engineering Services
W. Van Heuvelen, M.S., P.E., Chief

James R. Amos, M.D.
State Health Officer

Division of:
Water Supply & Pollution Control
Environmental Sanitation & Food Protection
Environmental Engineering

December 7, 1967

Mr. Garry L. Fisk
Acting Regional Program Director
Federal Water Pollution Control
Administration
Department of the Interior
601 East 12th Street
Kansas City, Missouri 64106

Re: Walhalla, North Dakota

Dear Mr. Fisk:

At the conclusion of the Evaluation Conference held in Fargo yesterday, December 6, I received a call from North Central Consultants who are consultants for Walhalla, North Dakota. They indicated that the Mayor of Walhalla had planned to attend the Conference meeting but, because of fog and inclement weather in the northeastern part of the State, was unable to drive to Fargo.

As indicated in our testimony, the consultant confirmed the fact that the City of Walhalla is proceeding with waste treatment facilities to be completed on or before November 1, 1968, and will be in compliance at that time.

Sincerely,

(Signed) W. Van Heuvelen
W. Van Heuvelen
Executive Officer

WVH:ls
cc: Commissioner, Federal Water Pollution Control Administration
Attn: Assistant Commissioner for Enforcement
(Fwd by FWPCA, Mo. Bason Region, 12/12/67) ab

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NORTH DAKOTA
STATE DEPARTMENT OF HEALTH
BISMARCK 58501

Environmental Health and Engineering Services
W. Van Heuvelen, M.S., P.E., Chief

James R. Amos, M.D.
State Health Officer

Division of:
Water Supply & Pollution Control
Environmental Sanitation & Food Protection
Environmental Engineering

December 7, 1967

NORTH DAKOTA PRESENTATION

Mr. Garry L. Fisk
Acting Regional Program Director
Federal Water Pollution Control
Administration
Department of the Interior
601 East 12th Street
Kansas City, Missouri 64106

Re: Abercrombie, North Dakota

Dear Mr. Fisk:

This letter is to request the removal of the Village of Abercrombie, North Dakota, from the list of communities as discharging wastes to the Red River in the "Proceedings of the Conference in the Matter of Pollution of Interstate Waters of the Red River of the North, North Dakota-Minnesota." The Village of Abercrombie has individual septic tanks that discharge to a common drainage field. This drainage field discharges to a ditch but the wastes do not reach the Red River. This Department was in error in listing Abercrombie as a waste source on the Red River.

Sincerely,

(Signed) W. Van Heuvelen
W. Van Heuvelen
Executive Officer

WVH:ls

cc: Commissioner, Federal Water Pollution Control
Administration
Attn: Assistant Commissioner for Enforcement
(Fwd by FWPCA, Mo. Basin Region, 12/12/67) ab

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NORTH DAKOTA PRESENTATION

NORTH DAKOTA
STATE DEPARTMENT OF HEALTH
BISMARCK 58501

Environmental Health and Engineering Services
W. Van Heuvelen, M.S., P.E., Chief

James R. Amos, M.D.
State Health Officer

Division of:
Water Supply & Pollution Control
Environmental Sanitation & Food Protection
Environmental Engineering

December 15, 1967

Mr. Murray Stein
Assistant Commissioner
Enforcement Federal Water Pollution
Control Administration
U. S. Department of Interior
633 Indiana Avenue, N.W.
Washington, D. C. 20242

Dear Mr. Stein:

We are enclosing a copy of a letter that has been sent to Mr. Garry Fisk, Director, of the Federal Water Pollution Control Administration, Missouri Basin Region at Kansas City. This office is requesting that the information in the enclosed letter be included as a part of the minutes of the Progress Evaluation Meeting that was held in Fargo, North Dakota, on December 6, 1967.

Sincerely,

(Signed) N.L. Peterson
Norman L. Peterson, Director
Division of Water Supply and
Pollution Control

NLP:vb
Encl:

NORTH DAKOTA PRESENTATION

NORTH DAKOTA
STATE DEPARTMENT OF HEALTH
BISMARCK 58501

W. Van Heuvelen, P.E.
Executive Officer

James R. Amos, M.D.
State Health Officer

December 15, 1967

Mr. Garry L. Fisk
Acting Regional Program Director
Federal Water Pollution Control
Administration
Department of Interior
601 East 12th Street
Kansas City, Missouri 64106

Re: Sewage Treatment
Facilities, Fairmount,
North Dakota

Dear Mr. Fisk:

The City Officials of Fairmount, North Dakota, called a special meeting on December 14, 1967, and requested that a representative of this office be present to discuss satisfactory treatment of the wastes from the City. I attended this meeting.

The Fairmount City Officials, at this special meeting, unanimously passed a resolution to the effect that at the regular January meeting of the City Board they would select a consulting engineering firm to take all the necessary steps toward providing satisfactory waste treatment facilities for the City with anticipated construction of such facilities during the 1968 construction season.

It would be appreciated if this information could be entered into the minutes of the Progress Evaluation Meeting that was held in Fargo on December 6, 1967. A copy of this letter is being forwarded to Mr. Murray Stein in Washington.

Sincerely,

Norman L. Peterson, Director
Division of Water Supply and
Pollution Control

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